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Measurement Business Division

Customer Service Document

Document Title: Service Update Plan

Product Name: TDS210 TDS220

Update Plan #: 40-003

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Issue Date: August 23, 1999

Revision Level: C

Approval:

CSBU Service Programs Manager:

Signature: _____

MBD Quality Director:

Signature: _____

REVISION LEVEL SUMMARY:

Revision Level A is the origination level for this document.

Revision #	Date	Initiator	Level Change From: To:	Description
1	July 2, 1998	Jim Sullins Roy Lindley	A B	Updated information, see Page 2 for summary
2	August 23, 1999	Jim Sullins	B C	Revised for TDS200 Recall Phase II changes. See summary on pages 2 and 4

Revision Level C:

The TDS200 Service Update Plan has now been revised to: 1) document changes which occurred during the first year of the TDS200 Recall Program, 2) to support the Phase II communication/product modification effort. Refer to the new Section 0 of this document for additional Phase II information. **Note: Revision Level C of this document is intended to fully replace Revision Level B.**

List of Attachments to TDS200 Service Update Plan, Revision C:

1. TDS200 Rework Instructions <No Change>
2. TDS200 Recall Customer Letter * <Revised>
3. TDS200 Recall Customer Information Form * <No Change>
4. TDS200 Recall Return Instructions * <Revised>
5. Distributor Phase II Information – Distributor Mailing CNPs <New>
6. Distributor Phase II Information – Tek Mailing CNPs <New>
7. TDS210/TDS220 Frequently Asked Questions <New>
8. Sales/Marketing IOC – Phase II (Internal Only) <Revised>
9. Letter: "Thank you – Your unit was successfully modified" <No Change>
10. Letter: "Did not need to return – Serial number not affected by recall" <No Change>
11. Letter: "Did not need to return – Product type not included in recall" <New>
12. Letter: "Did not need to return – Unit was already modified" <New>
13. Quantity of product subject to recall <Revised>

* Available for download from <http://www.safety.tektronix.com>

Sections changed for Revision Level C <Noted as Revised at head of section>:

All affected pages	Changed U.S. Recall Center to DC Service Depot
All affected pages	Changed E.U. Recall Center to Cologne Service Depot
Page 3 Summary	Revised Expected Termination Date, Added "BU" unit serial numbers for early non-salable demo units
Section 0	New section containing Phase II Strategy information
Section I	New Tektronix Safety Web Page URL
Section II, Part B	Updated Recall Center locations. Enabled local on-site decision-making
Section II, Part C	Updated for Phase II Timetable
Section II, Part D	Adjusted TAT goal from 5 working days to 7 working days (to customer)
Section II, Part E	Included guidelines for Phase II Materials requirements
Section III	Reduced emphasis on Distributor inventory
Section IV, Part A	Updated to describe Phase II Customer Notification strategy
Section V, Part A	Updated for Phase II Timeline
Section V, Part B	Confirmed Phase II Temp labor option for centralized locations
Section V, Part C	Extended Recall out-of-warranty unit repair coverage to May 31, 2000.
Section V, Part I	Updated Data Reporting contacts and frequency for Phase II
Section VI	Added parts order information, part number for main board BNCs.

SERVICE UPDATE PLAN

TDS210 TDS220

August 23, 1999

Intent: Announce the approved no-charge Service Update Plan to Service Management. This plan contains information for implementation.

Customer Notification: Distributors and Customers will be notified of this update program.

Expected Termination Date: The ground wire modification specified by this Safety Recall program needs to continue indefinitely – even after normal Tektronix repair and calibration support for these products has ended. This should be accomplished directly via Tektronix or via a designated service provider when and if support for these products is transitioned to another company.

Reference:

Service Update Plan: 40-003

Service Update Kit #: None

Corporate Modification number: M86531

Estimated Modification Time:
DCFO, Cologne, Sony/Tek 0.25 hours
Service Center Locations 0.5 hours

Program Classification: Mandatory

Program Type: Safety Recall

Location of Installation: Authorized TDS200 Recall Centers

Number of Products Affected: TDS210 B010100 – B049399
TDS210 C010000 – C010879
TDS210 BU10000 – BU50199
TDS220 B010100 – B041059
TDS220 C010000 – C011174
TDS220 BU10000 – BU50199

0. Phase II Strategy (Added)

Phase II Goals

The TDS200 Safety Recall begun in June 1998 is now moving into Phase II beginning in September 1999. The goal of Phase II is to locate and modify as many additional customer units as reasonably feasible that were not located and modified during Phase I. While the desire is to modify all remaining units, the overall unit volumes for Phase II are forecast to be 20% to 25% of the volumes experienced during Phase I.

Phase II Notification Methods

Phase II will consist of targeted mailings of Customer Notification Packages (CNPs) to distributors and to customers that did not have all of their units modified during Phase I.

U.S./Europe Recall Center Changes

The centralized TDS200 Recall Centers established during Phase I for the U.S. and Europe have now been relocated to the Washington DC Service Depot and the Cologne Germany Service Depot. Customers in the U.S. will now be instructed via the revised Customer Notification Packages (CNPs) to ship the units directly to the DC Service Depot.

Customers in Europe will be instructed to contact their local Tektronix Service Center for shipping instructions. This will enable the customer contact to occur in the appropriate local language and will enable the local Service Center to determine the appropriate method to address the customer's units. The revised CNPs will list the Cologne Service Depot as the TDS200 E.U. Recall Center. During the peak volume period of Phase II, normal Service logistics process will be followed to forward units to Cologne for centralized modification. Following the peak period of Phase II, the local Service Centers may choose to perform the modifications in-country rather than shipping the unit(s) to Cologne.

For all other geographies, the recall will continue to be supported in the same locations and by the same methods as were used during Phase I.

Following the end of the peak unit volumes of Phase II, the modification process will continue to be performed by all Service Depots and Service Centers/locations identified for support of Phase II. At that time European Union Customer Care Centers might instead choose to modify units locally rather than shipping them to the centralized modification facility in Cologne.

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I. PROGRAM OVERVIEW: (Revised)

Tektronix has determined that certain incorrect use of our model TDS210 and TDS220 oscilloscopes may cause the ground connection to fail on these products, potentially exposing the user to risk of serious personal injury or death. As a result, Tektronix is voluntarily recalling these products. We are conducting a recall to prevent this possibility of injury to Tektronix customers.

If a user incorrectly connects a probe ground lead to a voltage source, or incorrectly touches the ground ring near the probe tip to a voltage source, a circuit board trace in the product's electrical ground path may open. Thereafter, the product may appear to function normally; however, the unit is no longer properly grounded. Subsequent use of the product could then result in a serious electrical shock to the user.

A modification has been implemented that connects the ground circuitry directly to the center ground terminal on the IEC power input receptacle to provide a more robust measurement input ground path.

Customers will be notified to return their products to a local or regional TDS200 Recall Center to have their products modified.

For additional information and downloadable Customer Notification Packages, refer to the Tektronix web site: <http://www.safety.tektronix.com>

Local language versions of the Customer Notification Package will also be accessible from this same web site.

II. IMPLEMENTATION OVERVIEW:

A. Product Modification:

The modification consists of unsoldering a ground wire from the Power Supply circuit board and resoldering the wire directly to the ground terminal on the IEC power input receptacle. Refer to attachment # 1, the revised TDS200 Rework Instructions, for detailed information.

" The Rework Instructions specifically designed for the U.S. Recall Center modification line are available under file name [WI-1187.pdf](#) on the Tektronix internal Website at:

<http://mfgweb.cse.tek.com/viewfiles>

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B. Designated TDS200 Recall Centers (Revised)

The intent of this program is that all affected units will be modified in designated TDS 200 Recall Centers.

All distributors and end-user customers should be strongly encouraged to send their units to a TDS200 Recall Center. If end-user customers are unable to return the entire set of products at one time, they may choose to return smaller quantities until all of their TDS210 and TDS220 products have been modified. It is essential that all identified affected units be modified.

During Phase II of this program, on-site modification of units may be approved by local Service management.

The majority of the TDS200 products are located in Europe and the United States. Centralized modification processes have been established at the Cologne Service Depot to support the European Union countries, in the DC Service Depot to support the U.S. products, and at Sony/Tek for all products in Japan. All geographical areas are expected to meet the TAT goal of seven working days that has been committed to customers. The seven days are from receipt by the Tek facility until the unit is returned and back in the hands of the customer.

Cologne is the designated Recall Center for all European Union countries. Updated information in Customer Notification Packages (CNPs) delivered to customers and on the <http://www.tek.com> WEB site refer the customer to their local in-country service facility. This reference to local Service Center will ensure they receive the TDS200 Recall information in the local language. The in-country service center will provide the necessary recall and shipping logistics information. During the peak volume period of Phase II, normal Service logistics process will be used to forward units to Cologne for centralized modification.

Following the peak period of Phase II, local E.U. Service Centers may choose to perform the modifications in-country rather than shipping the unit(s) to Cologne. All modifications in the local Service Center must meet the TAT expectation which has been set with the customer (refer to TAT Goals section below).

The local service facility in an EU country might also be requested to provide on-site modification for local customers or distributors with a large quantity of products at one location. The need for on-site modification of units may be reviewed and approved by the local Service Manager.

Modifications in Lichtenstein, Switzerland will be performed in-country by a local Authorized Service Provider listed on the TDS200 Recall Return Instructions

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sheet. Modifications in Norway will be performed in-country by Morgenstjerne Teknisk AS, Olaf Helstsvei 1, Oslo, Norway. Phone: 47 2278 2740, FAX: 47 2278 2749. WWW:<http://www.morgenstjerne.no>. Contact: Roy Hebnes, E-Mail: roy.hebnes@morgenstjerne.no

Designated TDS200 Recall Centers (continued)

The DC Service Depot is the designated modification site for all U.S. products. Updated information in Customer Notification Packages (CNPs) delivered to customers and on the <http://www.tek.com> WEB site list the DC Service Depot address and a phone number/FAX number that will be supported from Beaverton.

Sony/Tek is using a combination of service and manufacturing personnel to modify all affected products in Japan.

All other international Tektronix Service Centers will modify products within their country and provide assistance to any other normally supported area that cannot perform the modification.

International Service Centers might also be requested to provide on-site modification for distributors with a large number of products at one location. On-site modifications will be negotiated with the local Service Center manager on a case-by-case basis.

Distributors serving as Authorized Service Providers in Latin South, Latin North, Asian areas, South Asia, Middle East and Eastern Europe will perform the modification in-country. Distributors should use their normal Tektronix support location contacts for information to assist them in performing the modification. A record of all products and serial numbers of products modified must be returned through the normal Tektronix contact. The Customer Information Form data must also be returned per the "Modification Data Reporting" section below.

C. Modification Timetable (Revised)

1. Distributor Inventory

Phase I Distributor notification began June 22, 1998. Refer to Section III below for more information regarding Distributor involvement in this Recall effort.

2. Customer Products

Phase I Press releases were sent out starting June 22, 1998. Phase I Customer Notification Packages (CNPs) were distributed between June 26 and July 17, 1998.

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Phase II Customer Notification Packages (CNPs) will be distributed in the U.S. beginning September 3, 1999. Phase II CNPs will be distributed internationally beginning with Europe in late October 1999, followed by distribution in other countries/geographies.

D. TAT Goals (Revised)

Tektronix's intent is to have modified products back to the customer or distributor within 7 working days of its receipt by the TDS200 Recall Center or in-country service location. This duration includes the 2nd Day Air return shipment back to the customer. Therefore the internal TAT goal for modification at the Recall Centers or local Service Centers is a maximum of 5 working days. TDS200 Recall Centers and in-country service locations must ensure sufficient resources are available and shipping methods are used to meet these TAT goals. See "Required Resources" in Section V, Part B.

E. Material Logistics (Revised)

All TDS200 Recall Centers should review local material requirement history from Phase I and immediately place Priority 1 orders for any additional requirements for Phase II. Overall unit volumes for Phase II are forecast to be 20% to 25% of the volumes experienced during Phase I. Required part numbers are listed in Section VI. (Note that the list has been revised). Orders are to be placed with Customer Service Parts through normal parts ordering methods. Material will begin shipping as soon as orders are received. Local TDS200 Recall Centers are responsible to place additional P1 parts orders as required to replenish their local stock of these parts. Local stock of parts is needed to ensure defective products can be quickly repaired and meet the TAT goals.

III. DISTRIBUTOR INVENTORY MODIFICATION (Revised)

A. Notification of Distributors

The recall of distributor inventory for Phase I began on June 22, 1998. Distributors will be aware of, but will not play a major role during Phase II.

B. Modification of Distributor Inventory

Due to the extensive effort during Phase I, it is expected that all Distributor inventory has already been modified and/or sold to end-users prior to the beginning of Phase II. Any un-modified units still remaining on Distributor shelves will be modified via the customer unit modification processes.

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C. Return of Distributor Inventory

Due to the extensive effort during Phase I, it is expected that all Distributor inventory has already been modified and/or sold to end-users prior to the beginning of Phase II. Any un-modified units still remaining on Distributor shelves will be modified via the customer unit modification processes.

IV. CUSTOMER UNIT MODIFICATION

A. Notification of Customers (Revised)

Customer will be informed of the TDS200 Recall by various methods including:

- Web site information – Revised for Phase II
- Customer Notification Package from Tektronix – Revised for Phase II
- Customer Notification Package from distributors – Revised for Phase II

The Customer Notification Package will instruct the customer to use their appropriate TDS200 Recall Center. Customers learning of the recall through other sources may contact any Tektronix facility. Customers that do not have a Customer Notification Package should be provided a copy so they can use the shipping information provided in the package, The package can be downloaded from the web site: <http://www.safety.tektronix.com> or refer to attachments # 2, #3, #4 for a sample.

The Customer Notification Package instructs customers to use their own appropriate packaging that will protect the product during shipment. However, Recall Centers and in-country service providers should order an appropriate number of shipping packages to have available for customers that do not have proper shipping packages and request assistance.

B. Modification of Customer Units

The TDS200 Rework procedure provides the instructions for performing the modification. Methods for handling products with failures or that need re-calibration because of traceability seals are also contained in the TDS200 Rework Instructions. Refer to attachment # 1 for instructions and attachment # 9 for customer metrology information.

C. Return of Customer Units

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Customer units should normally be returned in the same packaging as received. However, if the customer's packaging is not suitable for reuse, new packaging should be used. Refer to the revised "Shipping Strategy" in Section V, Part H.

V. IMPLEMENTATION DETAILS :

A. Timelines (Revised)

The first U.S. products resulting from Phase II communications effort are expected to arrive for modification at the TDS200 U.S. Recall Centers during the week of August 30, 1999.

The first International products resulting from Phase II communications effort are expected to arrive for modification at International TDS200 Recall Centers during the first week of November, 1999.

The Phase II TAT goal for the TDS200 Recall Centers is a maximum of 5 days (internal process time). The TAT for the customer or distributor is 7 working days from receipt at the TDS200 Recall Center until the customer receives the product back. The 7 days includes the 2nd Day Air return shipment back to the customer.

B. Required Resources (Revised)

TDS200 Recall Center labor must be adjusted to achieve and maintain the TAT goal. Temporary resources might be needed, particularly during the first few months of Phase II, in order to maintain the TAT irrespective of received unit volumes.

C. Costs of Recall Program (Revised)

The costs for labor, materials, shipping, and travel expenses for installing the safety modification described in the Service Update Plan will be charged back to the Product Line. The expenses incurred for the temporary resources and travel for on-site modifications will also be included as an expense of the Service Update Plan and will be charged to the Product Line. Refer to Section VII for the Accounting Procedures.

Products requiring repair in addition to the no-charge safety modification will be covered under the normal warranty if still within the warranty period.

The oldest TDS210 and TDS220 products will reach the end of the warranty period in September of 1999. When returned for the recall modification program, repair of out-of-warranty units will be covered as part of the recall program through May 31, 2000. After that date these repairs will be handled as normal billable service jobs.

D. Modification and Testing Instructions

All TDS200 units in the affected serial number ranges received either for update or received for normal repair and/or calibration must be modified. After the product is modified, place the white label (shown below) on the rear panel to the left of the serial number. The label is orderable by 9-digit part number (listed in Section VI. Parts List). Previously modified products can be identified by this label. A label should also be placed on the outside of the shipping box for the customer to easily identify that the product as "modified" without having to open the box.



The label has been part numbered in sheets of 72 individual labels to provide an ongoing supply. See section VI for the part number

If the continuity check shows an open power supply ground path, the product should be routed immediately to the normal service repair process to have the power supply replaced with a modified supply. Other repairs should also be routed quickly through the normal service process.

Modification and Testing Instructions (continued)

Complete modification and functional check instructions are provided in the TDS200 Rework Instructions. Refer to attachment # 1. A color printed version of the procedure has been mailed to each TDS200 Recall Center (c/o ATTN: TDS200 Recall Center and/or Service Center Manager).

The following changes should be made to the original printed color versions of TDS200 Rework Instructions:

Page 8 "Repackage" - Do step #6 ONLY for end-user customer units.
Distributor units should only be labeled with the 40-003 modification tag on the back panel of the unit and on the outside of the product packaging.

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Surveys will be done directly with customers via phone or mail following completion of the rework process.

E. Process for Defective Products (Revised)

All affected units received for normal Service Center repair or calibration in an unmodified condition must also be modified according to this Service Update Plan. Modification data must also be reported per the Modification Data Reporting guidelines contained in Section V, Part I below. Data reporting must occur for the entire duration of this Service Update Program.

If a product fails the functional check or is found to defective, it should be logged into the normal service center processing system and serviced as any failed product. Repairs for these products should be expedited whenever possible.

Products requiring repair in addition to the no-charge safety modification will be covered under the normal warranty when still within the warranty period.

The oldest TDS210 and TDS220 products will reach the end of the warranty period in September of 1999. When returned for the recall modification program, repair of out-of-warranty units will be covered as part of the recall program through May 31, 2000. After that date all repairs, other than failure of the power supply ground, will be handled as normal billable service jobs.

If the Power Supply ground run is found to be open, the power supply should be replaced and charged against this Service Update Plan. This should be done irrespective of whether a unit is in warranty or out of warranty or the date that the unit is serviced.

F. Impact on Calibration

The modification that is performed has no impact on measurement accuracy, therefore the current calibration status of the unit remains intact. Refer to the Rework Procedure for details on Calibration labels. Refer to the "Thank you" letter (attachment # 9) for a statement to the customer regarding metrology concerns.

In all cases when it is necessary to replace the power supply or other modules, the unit must be re-calibrated using the normal service repair and calibration process prior to return to the customer.

G. Calibration Offering

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Products should not be calibrated after performing only the Safety modification. Customers are not to be contacted to offer calibration service, even if the calibration label indicates that the unit is beyond its calibration due date. The purpose of this program is to quickly modify and return the products to the customers. It is not in our best long term interest to slow down the process by contacting the customers to generate business while doing the voluntary recall program.

However, some customers might specifically request a calibration be performed as a convenience while the unit is in the Service Center for the modification. When this occurs, the unit should first go through the rework procedure. After the modification and labeling is completed, the unit should then be handled in the same manner as a normal billable calibration, including contact for customer order quote and billing/shipment information. This added calibration activity should be completed as quickly as possible.

As noted in section F above, if the unit has a power supply which must be replaced due to an open ground run, or other failure which affects the calibration, it will be calibrated as part of the normal service repair process.

H. TDS200 Shipping Strategy

U.S. Carriers and Packaging

Smaller quantities of TDS200 products in the United States will be shipped via UPS as the preferred carrier. UPS shipping charges may be charged to the Tektronix UPS shipping account number (96839X). For quantities of 10 units or greater, Airborne, Burlington, or other preferred carrier should be utilized. These larger product quantities should be shipped as a unit, either boxed or palletized, to ease handling and to control shipping costs. Products should be packaged in the original product packaging if available. Otherwise, the product should be inserted in a plastic bag and then properly packaged to ensure the product is not damaged during shipment.

International Carriers and Packaging

Preferred local carriers should be utilized for both in-bound and out-bound shipment of TDS200 products. Product quantities of 10 or more should be shipped as a unit, either boxed or palletized, to ease handling and to control shipping costs. Products should be packaged in the original product packaging if available. Otherwise, the product should be inserted in a plastic bag and then properly packaged to ensure the product is not damaged during shipment.

Customer Information

Customer Notification Packages will be provided to distributors and end-user customers to inform them to ship via UPS in the United States. Distributors and customers in international locations who might be unsure of proper shipping methods will be instructed to contact their local TDS200 Recall Center or local Tektronix service provider. This will ensure that the customer is informed of the preferred local carrier(s) and will enable the necessary information and assistance to be provided in the local language.

Method and Billing (Revised)

All in-bound shipping should be via 2nd Day Air. In-bound shipping labels for these units should specify "ATTN:TDS200 Recall Center. All out-bound shipping must be selected to meet the expectation that the unit will be returned to the customer within "Seven business days after receipt of the product."

Tektronix will pay all shipping costs associated with the TDS200 Recall Program. The shipping payment method specified to the carrier should be "Collect." DO NOT SHIP VIA COD! Tektronix TDS200 Recall Centers, Field Service Centers, and local Tektronix service providers are authorized to accept "Collect" or "Bill 3rd Party" deliveries for this Safety Recall program.

I. Modification Data Reporting (Revised)

Accurate record keeping and timely forwarding of all modified unit data to the Data Entry Center is **ESSENTIAL** to the success of this program.

Customers will return a "Customer Information Form" with each product. Refer to the example included in attachment # 3 or the information on the Tek Web site referenced in Section I. In addition to the return customer shipping information, this form has two check boxes labeled "A" and "B". On each form, check either Box A if the power supply run was still good or check box B if the power supply run was open. (refer to the continuity test in attachment 1).

Each form provides the record of a product that has been modified. Product modification records for Phase II should be collected on a weekly basis. The information on each Customer Information Form should be either FAX'd to the Beaverton Data Entry Center at (503) 627-5532 or collected and placed in the mail. Mailed forms should be sent to: MBD Quality, Del. Sta. 50-462, Attn: Patty Rhyne. Any electronic files collected from batch updates of modified units should be emailed to **Patty Rhyne (Patricia.A.Rhyne@tek.com) at the Data Entry Center.**

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All product type, serial numbers and ground run condition (A or B) will be entered into a central database in the Quality group in Beaverton. This data will be used to monitor the progress of the recall program.

If a product arrives without a Customer Information Form, a blank copy (downloaded from the Tek Web site referenced in Section I or copied from attachment # 2) should be filled in at the TDS200 Recall Center so the product information can be sent to Beaverton as above.

Local service centers performing repairs as part of this Recall program should include "TDS200 Recall" in the comments section of the local service job tracking system.

VI. PARTS LIST: (Revised)

Each TDS200 Recall Center is responsible to ensure availability of appropriate quantities of the parts listed below. Original recommended quantities are identified in the table, but might not be appropriate for Phase II. Refer to Section II, Part E for Phase II inventory planning guidelines. Stock is available in Customer Service Parts inventory to fill these orders. Place the order as a Priority 1 order. Specify "TDS200 Recall" in the Oracle Schedulers Note Field. DO NOT specify "No Partials". The costs of the inventory will be charged to the Service Update Program. TDS200 Recall Centers are responsible to place additional P1 parts orders as required to replenish their local stock of these parts.

<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>	<u>Recall Centers</u>
004-3192-00	Shipping box *	500	50
004-3191-00	End caps, packaging *	500	50
004-3193-00	Cushion material, packaging *	500	50
006-1201-00	Plastic bag *	500	50
119-5417-02	Power supply **	20	5
334-9849-00	"SUP 40-003" Label, 1 sheet/72 labels	Order as needed	
441-2082-00	Chassis, (next to ground run)	5	2
119-4991-11	LCD Module	10	2
679-3743-00	Front panel module	10	2
159-0064-00	Fuse, 5x20mm, 1.0A, 250V (or obtain locally)	25	5
366-0771-00	Knob	25	5
366-0772-00	Knob	25	5
366-0774-00	Power push button	10	2
348-1525-00	Foot, front	25	5
348-1484-00	Foot, rear	25	5
348-1534-00	Gasket	10	2
202-0345-01	Case, back	20	2

202-0346-00	Case, front	20	2
334-8682-00	Bezel label, TDS220	2	1
334-9261-00	Bezel label, TDS210	2	1
334-9262-01	Rear panel warning/SN label	2	1
367-0472-00	Handle	10	2
367-0476-00	Flip stand	10	2
260-2654-00	Switch pad	3	1
131-6173-01	ESD clip	50	5
131-5999-00	BNC	50	5

* To be used for return shipping of all Distributor inventory of the original packaging has been damaged. Also for use when returning customer units sent to a TDS200 Recall Center in insufficient or damaged packaging.

** All power supplies with open ground runs **MUST** be replaced. Repair of the run is not acceptable.

VII. ACCOUNTING PROCEDURES: (Revised)

OpenUpTime:

For installing the safety modification or replacing power supplies with open ground runs, use RPI for labor, PUI for parts, CVI for calibration and charge the job to the Recall Cost Center account # 2001-05, 3710, Product Family 2700.

For all other warranty TDS200 repairs/calibrations, follow the normal warranty job reporting procedures. Note: When returned for the recall modification program, repair of out-of-warranty units will be covered as part of the recall program through May 31, 2000. Refer to Section V.E. for more information. After May 31, 2000, use normal billable job procedures for out-of-warranty units.

For on-site jobs, use normal on-site job procedures for reporting labor, materials, and travel to/from the customer site.

International Sites Without OpenUpTime:

Utilize the Subsidiary Installed Product Upgrade Report as described in Section 035.020 of the International Finance and Accounting Policies and Procedures book.

Other Charges:

Other direct TDS200 Recall program costs, such as additional temporary labor, on-site travel, required parts inventory (from section VI), unique shipping costs, should be billed to the TDS200 Recall account # 2001-05, 3710, Product Family 2700.

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Authorized Service Provider Reimbursement:

Cost reimbursement requests from Authorized Service Providers (ASPs) may be submitted to **Elisabeth Wyllie** (Elisabeth.A.Wyllie@tek.com). **Requests must include the ASP company name, a list of all models/serial numbers updated, the cost per unit, and the type and total amount of reimbursement currency required, and necessary bank information***. The ASP should also submit the completed Customer Information Forms to the TDS200 Recall Data Entry Center.

* To support electronic wire transfers the ASP should also include:

Bank Name

Bank Address (including City/Country)

Bank Account Number

Sort Code Number (if known)

Modification Time Estimate:

Labor time estimate for modification:

0.25 hours (DCFO, Cologne, Sony/Tek)

0.5 hours (Other Service Locations)

VIII. SPECIAL EQUIPMENT:

A standard 10X scope probe is used for the functional check as part of the Rework Procedure (P6112 or equivalent).

TDS200 Rework Instructions

A. Remove Instrument from Carton

If Instrument is in original Carton from Distributor

1. Remove instrument from Carton.

Put all packaging materials back into the Carton.

If Instrument is in non-standard package

1. Remove instrument from Carton.
2. Inventory the carton and the instrument for customer accessories. Check for extension modules installed in the instrument. Put any modules, blank covers or accessories into a traveler pack.
3. Put all customer paperwork into the traveler pack.

B. Inspect Instrument

1. Inspect the instrument for physical damage. Look for broken plastic cases, broken knobs, broken BNC's or any other damage.

Note: Do not inspect for cosmetic damage. (i.e. scratches, smudges, dirt marks)

2. Inspect the instrument for calibration seals that need to be broken or damaged to complete the rework process. Refer to Section F on Page 6 for replacing calibration labels and/or seals.

If the unit has damage, move the instrument into the Normal Service Process.

3. If the unit Passes, continue.

C. Perform Continuity Test

1. Use a DMM to measure continuity of the ground.
2. Connect one lead to the ground pin of the IEC connector (center).
3. Connect the other lead to one of the BNC 's outer shells.
4. Check that there is continuity between these two points.

If the unit Fails, (no continuity, open ground)

1. Mark box B on the customer information sheet.
2. Make a photo copy of the customer information sheet and keep the copy.
3. Move the instrument into the Normal Service Process. The original customer information sheet must stay with the instrument in the Normal Service process.

If the unit Passes, continue.

1. Mark box A on the customer information sheet.

D. Disassemble Instrument

Remove carrying handle:

1. Using a spudger, lever out one end of the handle while handle is in the closed position.
2. Slide this end of the handle out of the case, relieving tension on the other end of the handle.
3. Remove handle from case and place it in the "REMOVED PARTS" receptacle for later reassembly.

Remove Power Supply Button:

1. Use needle-nosed pliers and a cloth.
2. Hold the unit upright and steady on work surface with free hand.
3. Grasp the button with the needled-nosed pliers (and cloth for protection) and pull off.
4. Place removed part in "REMOVED PARTS" receptacle at workstation for later reassembly.

Remove screws retaining back case with appropriate driver:

1. Place the unit face down.
2. Remove 2 screws from case and place in the "REMOVED PARTS" receptacle for later reassembly.

Remove back case assembly:

1. Lift top of back case up slightly to loosen it from the front case.
2. Place unit, top side down.
Insert a spudger between bottom edges of back and front cases, and slide spudger from end of unit to the other until the back case pops loose from the front case.
4. Lift back case straight up and set aside.

E. Power Supply Rework (119-5417-00/01)

1. Remove the back-light cable next to the IEC connector.
2. Unclip the power supply from the chassis.
3. Turn the power supply solder side up.
4. Unsolder the Green Wire from the ECB. Heat the solder joint on the back side of the ECB and pull the wire through the hole from the component side.
5. The end of the green wire needs to go through and wrap 360° around the lug on the back of the power plug connector.

NOTE: If there is not enough wire exposed to wrap 360° around the lug, strip the insulation back. (Typically 0.5 inches)

6. Solder the wire to the lug using no-wash solder. (Typically Kester 279 or 245)
7. Reinstall the power supply into the instrument chassis.
8. Reinstall the back-light cable into the connector.

F. Reassemble Instrument

1. Put Back Case in place by inserting the bottom of the Back Case into the bottom of the Front case and 'hinging' the Back Case around and into place on the Front Case.

Note: Check to ensure that the copper Flextube is not protruding from case.

Note: When reinserting the screws. Start by hand only

2. With the screw in contact with the previously cut threads of the existing hole, rotate the screw counterclockwise while applying a down-hole pressure on the screw.
3. When a slight down-hole motion of the screw is felt, retain down-hole pressure on the screw and turn (by hand) clockwise to engage the threads for 1 or more rotations.
4. The screw may now be tightened to specified torque utilizing the available hand driver.

Install the handle

1. Slide the handle onto the rear case until it snaps into place.

Install the power switch button

Push the power switch button onto the power switch shaft.
Leave the switch in the OFF position (button up).

Install the modification label

Place a modification label on the rear of the instrument to the left of the serial number label.

Replace Calibration labels or seals (if necessary)

1. If the unit case or chassis assembly has been replaced, inspect the part for any calibration or traceable calibration labels or calibration void seals. If present, the label and/or seal must be replaced prior to returning the unit to the customer.
2. When replacing the label, transfer the calibration date and calibration due date information directly and identically to the replacement Traceable Calibration (Tektronix) label. Also transfer the technician name/id and calibration lab information directly and identically. If any fields on the label are blank, leave them blank.
3. When replacing the calibration void seal, apply the seal in the identical location where it was originally located.

Install Extension Module

1. If there is a TDS2HM, TDS2CM or TDS2MM with the instrument install it.
2. If there is no module, install the blank cover, if provided.

G. Functional test

1. Use a DMM to measure continuity of the ground.
2. Connect one lead to the ground pin of the IEC connector (center).
3. Connect the other lead to one of the BNC 's outer shells.
4. Check that there is continuity between these two points.
5. Plug in the power cord and push the power switch ON.
6. Check the power up screen to ensure all diagnostics pass at power up.
7. If a module is installed check the power up screen to ensure it says the extension module is installed.
8. Connect a 10X oscilloscope probe to Channel 1 and to the probe comp. output. (P6112 or equivalent)
9. Press Autoset.
10. Check for a square wave signal on screen.
11. Connect the probe to Channel 2 and to the probe comp. output.
12. Press CH2 menu.
13. Double Press CH1 menu.
14. Press Autoset.
15. Check for a square wave signal on screen.
16. Disconnect the probe from the instrument.
17. Press Save/Recall
18. Press Recall Factory
19. Press the power switch OFF
20. Remove the power cord.

If the unit Fails any of the above steps, move the instrument into the Normal Service Process.

H. Log the instrument information

Make a copy of the customer information sheet.
See the Service Update Plan for additional data reporting requirements.

I. Repackage

1. Place the instrument in the plastic bag.
2. Slide the end caps onto the instrument. Use caution to ensure the end caps are oriented in the correct direction.
3. Place the instrument into the Carton
4. Place the cardboard insert between the end of the box and one of the end caps. The open end of the U shaped insert should face away from the instrument.
5. Place any accessories between the insert and the end of the box.
6. Add one copy of the Thank you letter (end-user customer units only).
7. Attach the customer return shipping information to the carton.
8. Place a modification label on the side of the carton under the product type label.
9. Tape the box.

J. Shipping

Return instrument to customer per the address on the customer information sheet.

Service Update Plan #40-003 - Attachment #2

September 7, 1999

To: Owners of Tektronix Oscilloscopes Model Number TDS 210 and TDS 220

Subject: Product Safety Recall-Second Notice

In June of 1998, Tektronix voluntarily recalled model TDS 210 and TDS 220 oscilloscopes because certain incorrect use may cause the ground connection to fail on these products, potentially exposing the user to **risk of serious personal injury or death**. We are continuing the recall to prevent this possibility of injury to our customers.

If a user incorrectly connects a probe ground lead to a voltage source, or incorrectly touches the ground ring near the probe tip to a voltage source, a circuit board trace in the product's electrical ground path may open. Thereafter, the product may appear to function normally; however, the unit is no longer properly grounded. Subsequent use of the product could then result in a serious electrical shock to the user.

While you may have received the original product recall information, our records indicate that your company has purchased product(s) that still need to be modified.

The recall applies to TDS 210 and TDS 220 oscilloscopes whose serial numbers fall within one of these ranges:

TDS 210 B010100 to B049399	TDS 210 BU10000 to BU50199	TDS 210 C010000 to C010879
TDS 220 B010100 to B041059	TDS 220 BU10000 to BU50199	TDS 220 C010000 to C011174

The TDS 224 is not subject to this recall.

Please check the rear panel of your TDS 210 or TDS 220 oscilloscope(s) to see if the serial number falls within one of the ranges listed above, or whether the rear panel displays a white, vertically oriented decal indicating that the product has been modified and is safe for use. The photo on the back side of this letter shows the locations of the model and serial numbers, as well as the modification decal.

If you are unsure whether your product has been modified, please check the Tektronix Safety and Recall Web site at www.safety.tektronix.com. An input screen will guide you through a process that will help you verify, by model and serial number, the modification status of your instrument. If you are unable to access the serial-number verification tool on our Web site, call the service center number in your geographic area, listed on the enclosed Recall Return Instruction Sheet. One of our service representatives will help you determine the modification status of your instrument.

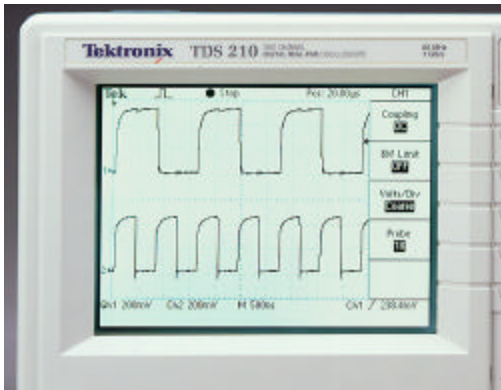
If your oscilloscope's serial number falls within one of the ranges listed above and the product has not been modified, **stop using the product immediately**. Even if your oscilloscope appears to be functioning properly, you should not assume that it does not have an open ground connection.

If your product needs to be modified, please follow the return instructions shown on the enclosed Recall Return Instruction Sheet, or on the Safety and Recall Web site. Tektronix will modify and return the product to you within seven (7) business days from receipt, free of charge.

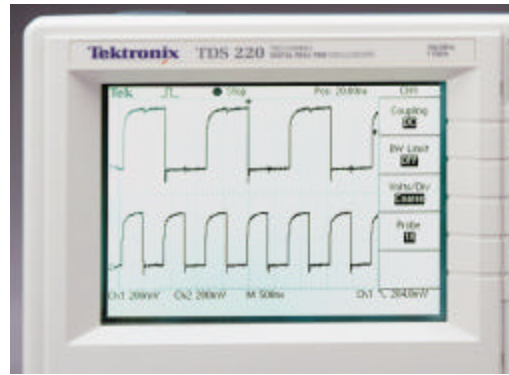
Thank you; we appreciate your cooperation. If you have any questions, please visit our Web site at www.safety.tektronix.com, or call the number in your geographic area listed on the enclosed Recall Return Instruction Sheet.

Very truly yours,

Peter C. Holman , Quality Director
Measurement Business Division



This is the front panel of a Tektronix TDS 210 oscilloscope. Note the model number following the word Tektronix.



This shows the nameplate section from the front panel of a TDS 220 oscilloscope. Note the model number following the word Tektronix.



Rear panel view of a Tektronix TDS 210. The larger horizontal white label displays the model and serial numbers.



This vertically oriented white decal in about the center of the rear panel, marked "P.S. MOD SUP 40-003," indicates that the oscilloscope has been modified.

Serial number location.

If your oscilloscope's serial number falls within one of the ranges indicated on the front of this letter, and the product has not been modified, stop using the product immediately.

Service Update Plan #40-003 - Attachment #3

TDS200 RECALL CUSTOMER INFORMATION FORM

Include the top portion of this yellow form, or photocopies of this form, with each unit returned. Complete this form and detach and keep the bottom portion for your records. All fields must be filled out. Before placing the TDS210 or TDS220 product into your shipping package, tape the top portion of the form to the oscilloscope.

Product Information

Model Number _____

Serial Number _____

Company Information (This should be the correct shipping information that we will use to return your oscilloscope.)

Company Name _____

Street Address _____

Mail Station (if applicable) _____

City _____

Province/State/Prefecture _____

Country _____

Postal Code/Zip Code _____

Contact Information

Contact Name _____

Contact Phone Number _____

Contact Fax Number _____

Contact E-mail _____

For TDS200 Recall Center Use Only:

A

B

TDS200 Recall Shipping Record (Retain this portion for your records.)

Model Number _____

Oscilloscope Serial Number _____

Date Shipped _____

Selected Tektronix TDS200 recall center address and phone number _____

TDS200 RECALL RETURN INSTRUCTIONS

This document describes the return instructions to have your TDS 210 or TDS 220 oscilloscope(s) modified by a Tektronix authorized TDS200 Recall Center. Please select a Tektronix Recall Center from the list below and follow these instructions for returning your affected TDS 210 or TDS 220 oscilloscope(s) for modification.

Steps for having your product modified:

1. Complete the yellow customer information form included in this packet. Complete both the top and bottom portion of the yellow form. You must fill out one of these forms for each TDS 210 or TDS 220 oscilloscope being sent in for modification. The top portion is to be sent with your oscilloscope. Detach the bottom portion and retain it for your records.

If you require additional forms (yellow form, or UPS U.S. shipping labels), make photocopies of the forms included in this information packet or contact your selected Tektronix authorized TDS200 recall center for additional copies.

2. Package the TDS 210 or TDS 220 unit with the top portion of the yellow form. Ship only the product and the top portion of the yellow form for that specific product. Do not include more than one instrument per box.
 - Do not ship any probes, manuals, software, power cords, communications options modules, interconnect cables, soft cases or any other accessories with your oscilloscope.
 - Be sure to use appropriate packing materials and a sturdy shipping carton to protect your instrument. If you have any questions regarding packaging, please contact your selected TDS200 Recall Center for advice.
3. In the U.S., complete the UPS shipping label (instructions provided). Affix the label to the top outside of your shipping package. The first line has been pre-printed with this instruction: Attention TDS200 Recall Center. Ship the package to the U.S. TDS200 Recall Center.
4. In European Union Countries, contact your local Tektronix Service Center for shipping instructions.
5. For other countries, call your TDS200 Recall Center for international shipping instructions, or contact your local Tektronix service provider.

Refer to the customer notification letter included in this packet, or the Web site listed below for affected serial number information. Also check labeling information at these sources to identify units previously modified.

Please note that we intend to modify and ship your oscilloscope(s) back to your attention within seven (7) business days of receipt.

For more information, visit our Web site at www.safety.tektronix.com, or contact your selected Tektronix TDS200 Recall Center.

TDS200 Recall Centers

<p>EUROPE European Union Countries <u>ONLY</u> Tektronix GmbH Stolberger Strasse 200 50933 Köln Germany Attention: TDS200 Recall Center Phone: Contact Local Tektronix Service Center Fax: Contact Local Tektronix Service Center</p>	<p>Liechtenstein & Switzerland <u>ONLY</u> SE Schweizerische Elektronikunternehmung Reparaturzentrum Brunnen Gersauerstrasse 71 6440 Brunnen Switzerland Attention: TDS200 Recall Center Tel.: +41 (0) 41 82 50 420 Fax: +41 (0) 41 82 50 429</p>	<p>NORTH AMERICA United States Tektronix, Inc. 700 Professional Drive Suite A Gaithersburg, MD 20879 Attention: TDS200 Recall Center Phone: 800-835-9433 Ask for "TDS200 Recall" FAX: 503-627-5532</p>
<p>Mexico Tektronix S.A. de C.V. Periferico Sur 5000, 8ava Piso Col. Insurgentes Cuicuilco Del. Coyoac-n 04530 Mexico, D.F. Attention: TDS200 Recall Center Phone: 52 (5) 666-6333 Fax: 52 (5) 666-6336</p>	<p>Canada Tektronix Toronto Service Center 3280 Langstaff Road Concord, Ontario L4K 5B6 CANADA Attention: TDS200 Recall Center Phone: (416) 747-5000 Fax: (416) 747-9799</p>	<p>SOUTH AMERICA Brazil Tektronix Industria e Comercio Sao Paulo Head Office Av. Maria Coelho Aguiar 215-BI.D-1 Andar 05805-00 Sao Paulo, SP, Brazil Attention: TDS200 Recall Center Phone: 55 (11) 3741-6366 Fax: 55 (11) 548-3570</p>
<p>AUSTRALIA New South Wales Sydney Office (Head Office) 80 Waterloo Road North Ryde, N.S.W. 2113 Attention: TDS200 Recall Center Phone: 61 (02) 9888-0100 Fax: 61 (02) 9888-0125</p>	<p>EASTERN EUROPE AND MIDDLE EAST (excluding Israel) Customers should contact the distributor from whom the TDS210 or TDS220 product was purchased or the local-country Tektronix service provider.</p>	<p>Israel Eastronics Ltd 11 Rozanis Street Mail: PO Box 39300 Tel Aviv 61392 Attention: TDS200 Recall Center Phone: 972 (3) 645-8777 Fax: 972 (3) 645-8666</p>
<p>ASIA Japan Sony/Tektronix Corporation Customer Service Division 5-9-31, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001 Japan Attention: TDS200 Recall Center Phone: 81-3-3448-3111 Fax: 81-3-3448-3659</p>	<p>China Shanghai Technical Support Centre 18/F, OOCL Plaza 841 Yan An Road Jing An District Shanghai 200040 Attention: TDS200 Recall Center Phone: 8621-62896908 Fax: 8621-62893078</p>	<p>Hong Kong Tektronix Hong Kong, Ltd. Tektronix Hong Kong Service Centre 36th Floor, The Lee Gardens 33 Hysan Avenue Causeway Bay, Hong Kong Attention: TDS200 Recall Center Phone: (852) 2585-6655 Fax: (852) 2598-6315 Cable: TEKHKGLTD</p>
<p>India, Bangladesh, Bhutan and Nepal Bangalore Service Center 11/5, Hayes Road Bangalore 560025, India Attention: TDS200 Recall Center Phone: 91 (80) 221-4437 Fax: 91 (80) 227-5588</p>	<p>Republic of Korea Tektronix Korea, Ltd. 7th/8th Floor, Ilsong Bldg. 157-37 Samsung-Dong Kangnam-Gu Seoul 135-090, Korea Attention: TDS200 Recall Center Phone: 82 (2) 528-4664, 5299 Fax: 82 (2) 528-0740, 5377</p>	<p>Brunei, Kampuchea, Laos, Myanmar, Singapore and Vietnam Tektronix Singapore Pte. Ltd. 101 Thomson Road #02-02 United Square Singapore 307591 Attention: TDS200 Recall Center Phone: (65) 356-3900 Fax: (65) 356-4485</p>

<p>Taiwan Tektronix Taiwan, Ltd Taipei Office 8th Floor, No. 2 Hsin Yi Road, Sec 5 Taipei 110, Taiwan, ROC Phone: 886 (2) 2722-9622 Fax: 886 (2) 2722-2799</p>	<p>ALL UNLISTED COUNTRIES OR GEOGRAPHIES Customers should contact the distributor from whom the TDS 210 or TDS 220 product was purchased, or the local-country Tektronix service provider (refer to this link on the Tektronix Web site, http://www.tek.com/Measurement/Service/csworld/welcome.html).</p>
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Service Update Plan #40-003 - Attachment #5

September 7, 1999

Dear <distributor>

In June 1998, Tektronix voluntarily recalled the TDS 210 and TDS 220 oscilloscopes. We solicited your help to notify as many customers as possible. To date, with your help, we have modified over 50% of these instruments.

A survey conducted shortly after the recall shows how much customers appreciate being informed on safety-related issues. Despite the recall, 29% of U.S. and 20% of European customers are more inclined to purchase Tektronix products again.

Yet, a substantial number of TDS 210 and TDS 220 products remain unmodified. As a result, we're asking again for your help in notifying customers that the potential risk still exists, and that they should return their oscilloscope(s) to Tektronix as soon as possible.

- To begin, we ask that you please place a link from your Web site to Tektronix' Safety and Recall Web site at www.safety.tektronix.com. This link will point your customers to the Tektronix Safety and Recall Web site for updated information on the recall and other safety information. Installing this link is fast and easy to do. The following URL will take your Web site developer to a page that provides step-by-step instructions, <http://www.tektronix.com/Measurement/programs/safety/distributors/>.
- We've also enclosed new Customer Notification Packages (CNPs), in the languages and quantities you requested, for immediate mailing to your customers who have bought affected TDS 210 and TDS 220 products.

Each CNP contains a second-notice letter to the customer, a TDS200 Recall Return Instruction Sheet, a TDS200 Recall Customer Notification Form, shipping instructions and a waybill (U.S. only). A sample CNP, in each language requested, is also included for your records.

As in the initial mailing, Tektronix will reimburse you for the first-class postage and labor costs associated with the completed CNP mailing. To activate the reimbursement, please supply a list of the names of the companies and the total number of packets you mailed to each. Please submit this information along with your invoice for these costs to:

Tektronix, P. O. Box 500, Beaverton, OR 97077, Attn: Peter Holman, MS 46-532.

If you need more CNPs, please complete the enclosed form and fax it to (503) 627-5532. We will process your order and send the CNPs to you immediately.

Thank you for your assistance in helping us notify your customers about this safety recall. We appreciate your efforts, and are sure your customers will, too.

Sincerely,

Peter Holman, Quality Director
Measurement Business Division
enclosure

Service Update Plan #40-003 - Attachment #6

September 7, 1999

Dear <istributor>

In June 1998, Tektronix voluntarily recalled the TDS 210 and TDS 220 oscilloscopes. We solicited your help to notify as many customers as possible. To date, with your help, we have modified over 50% of these instruments.

A survey conducted shortly after the recall shows how much customers appreciate being informed on safety-related issues. Despite the recall, 29% of U.S. and 20% of European customers are **more inclined to purchase Tektronix products again.**

Yet, a substantial number of TDS 210 and TDS 220 products remain unmodified. As a result, we're asking again for your help in notifying customers that the potential risk still exists, and that they should return their oscilloscope(s) to Tektronix as soon as possible.

- To begin, we ask that you please place a link from your Web site to Tektronix' Safety and Recall Web site at www.safety.tektronix.com. This link will point your customers to the Tektronix Safety and Recall Web site for updated information on the recall and other safety information. Installing this link is fast and easy to do. The following URL will take your Web site developer to a page that provides step-by-step instructions, and this link, <http://www.tektronix.com/Measurement/programs/safety/distributors/>
- Second, thank you for providing Tektronix a mailing list. We will use it to mail Customer Notification Packets (CNPs) to your customers who have bought affected TDS 210 and TDS 220 products. We have eliminated the possibility of duplicate contacts by removing from your list the names of those companies that have already had their instruments modified.

The CNP that we are mailing to your customers contains a second-notice letter to the customer, a TDS200 Recall Return Instruction Sheet, a TDS200 Recall Customer Notification Form, shipping instructions and a waybill (U.S. only). Included for your records is a sample CNP, in each language you requested.

If you need more CNPs for any reason, please complete the enclosed form and fax it to (503) 627-5532. We will process your order and send the CNPs to you immediately.

Thank you for your assistance in helping us notify your customers about this safety recall. We appreciate your efforts, and are sure your customers will, too.

Sincerely,

Peter Holman, Quality Director
Measurement Business Division

enclosure

TDS 210 and TDS 220 Recall Frequently Asked Questions

1. Didn't Tektronix already do a recall? Why is the company putting its customers through this again?

Tektronix began the first phase of this ongoing recall in June of 1998. Although a substantial number of the affected units were returned for modification, Tektronix is continuing its efforts to reach customers who have an affected TDS 210 or TDS 220 oscilloscope that needs to be modified.

2. How do I determine if my TDS 210 or TDS 220 oscilloscope is subject to the recall?

This ongoing recall applies to TDS 210 and TDS 220 oscilloscopes with serial numbers falling within one of the following ranges:

TDS 210 B010100 to B049399

TDS 210 BU10000 to BU50199

TDS 210 C010000 to C010879

TDS 220 B010100 to B041059

TDS 220 BU10000 to BU50199

TDS 220 C010000 to C011174

To find the serial number of your TDS 210 or TDS 220 oscilloscope, check the rear panel. If the product's serial number falls within one of these ranges, your product may be subject to the recall. On the back panel, if you see a white, vertically oriented, rectangular Tektronix label marked "P.S. MOD SUP 40-003," it means the oscilloscope has already been modified. Modified products are not subject to the recall and need not be returned. The rear-panel photographs on the Tektronix Safety and Recall Web site show the serial number and modification stickers. This site is located at <http://www.safety.tektronix.com>.

To confirm the recall status of your model, you may also enter its serial number into the Serial Number Verification Tool search field provided on the Tektronix Safety and Recall Web site. Products with serial numbers outside all of the ranges shown above, or products that have already been modified, are not subject to the recall.

3. How do I determine if my TDS 210 or TDS 220 oscilloscope has already been modified?

If you see a white, vertically oriented, rectangular Tektronix label marked "P.S. MOD SUP 40-003" on the back panel, it means the oscilloscope has already been modified. Modified products are not subject to the recall and need not be returned. To confirm the recall status of your model, you may also enter its serial number into the Serial Number Verification Tool search field provided on the Tektronix Safety and Recall Web site. This site is located at <http://www.safety.tektronix.com>.

4. What exactly is the problem?

Tektronix has determined that certain incorrect use of our model TDS 210 and TDS 220 oscilloscopes (which are subject to the recall) may cause the ground connection to fail on these products, potentially exposing the user to **risk of serious personal injury or death**. If a user incorrectly connects a probe ground lead to a voltage source, or incorrectly touches the ground ring near the probe tip to a voltage source, a circuit board trace in the product's electrical ground path may open. **Thereafter, the product may appear to function normally; however, the unit is no longer properly grounded.** Subsequent use of the product could then result in a serious electrical shock to the user. We are conducting a recall to prevent this possibility of injury to Tektronix customers.

5. How does a customer know if its product has an open ground connection?

The product will not display any visible outward sign that it has been damaged after the incorrect use; all of the damage is internal. The product will appear to function normally when used. Consequently, even if the product is functioning properly, you should not assume that it does not have an open ground connection. If your product's serial number falls within one of the designated serial number ranges and the product has not been modified, you should immediately stop using the product and send it to the Tektronix Authorized Recall Center in your geography for modification.

6. What should I do to return my unit?

You should return the unit to an Authorized TDS200 Recall Center with the appropriate information. Instructions on how to return TDS 210 and TDS 220 units can be found on the Recall Return Instruction Sheet.

7. How do I determine the appropriate Tektronix authorized recall center in my geography to send the product for modification?

"Authorized TDS200 Recall Centers" can be found on the Recall Return Instruction Sheet.

8. I know someone who has a TDS 200 unit...what should I tell them to do?

Please refer them to the Tektronix Safety and Recall Web site, located at <http://www.safety.tektronix.com>, or share with them the recall letter or other information that you have received about this ongoing recall effort. Only the TDS 210 and TDS 220 oscilloscopes within one of the designated serial number ranges are subject to this recall. **The model TDS 224 oscilloscope is not subject to this recall.**

Customers learning of the recall through other sources may contact any Tektronix facility. Customers who do not have a Customer Notification Package (CNP) should obtain a copy so they can use the shipping information provided in the package. To receive a CNP, please email your contact information to Tektronix at Recall-center@tektronix.com. We will send a packet to you immediately.

The Customer Notification Package directs customers to use their own appropriate packaging that will protect the product during shipment

9. I have twelve TDS 210s; do I still ship them UPS?

In the U.S., for quantities of 10 units or more, you should use Airborne, Burlington, or another preferred carrier. **In European Union countries**, call the nearest Tektronix Service Center for instructions. **For other countries**, call your TDS200 Recall Center (see the list at the end of the Recall Return Instruction Sheet) for international shipping instructions, or contact your local Tektronix service provider.

These larger product quantities should be shipped as a unit, either boxed or palletized, to ease handling and to control shipping costs. Products should be packaged in the original product packaging if available. Otherwise, the product should be inserted in a plastic bag and then properly packaged to ensure the product is not damaged during shipment. For a Tektronix billing number, or for additional information, please call the Authorized TDS200 Recall Center nearest you. Instructions on how to return TDS 210 and TDS 220 units can be found on the Recall Return Instruction Sheet.

10. Can I send my unit COD?

No. **If you are located in the U.S.**, please send the unit UPS second-day, collect. Contact the Authorized TDS200 Recall Center nearest you for a shipping label that has Tektronix' account information on it. **In European Union countries**, call the nearest Tektronix Service Center for instructions. **For other countries**, call your TDS200 Recall Center (see the list at the end of the Recall Return Instruction Sheet) for international shipping instructions, or contact your local Tektronix service provider.

11. After I send the product for modification, how soon can I expect the product to be returned?

Tektronix intends to modify and ship the modified unit(s) back to customers within seven (7) business days after receipt of the unit(s) at the Tektronix Recall Center.

12. If I have questions about the recall, whom can I contact?

You can call (1) your local Tektronix office or (2) the Authorized TDS200 Recall Center in your geography, (3) send an e-mail request for information to: Recall-center@tektronix.com, or (4) **In the U.S.**, call 1-800-835-9433.

13. Are you sure you can fix this problem?

Yes, the modification to remove this problem is easily handled by Authorized TDS200 Recall Centers.

14. Will you continue to sell the TDS 210 and TDS 220 oscilloscopes?

All units now being manufactured have the modification.

15. Does this ongoing recall mean that the TDS 210 or TDS 220 I just ordered won't be shipped to me?

No. You will receive your new product; all units now being manufactured have the modification.

16. Can you do a repair in the field?

No, to ensure proper modification, all units must be returned to Tektronix Authorized TDS200 Recall Centers, listed on the Recall Return Instruction Sheet.

17. Can the customer make the modification?

No.

18. Has Tektronix ever recalled any other products?

Recalls of Tektronix products have occurred only a few times in our 50+ year history.

19. Are other Tektronix products involved in this recall?

No, only the model TD S210 and TD S220 oscilloscopes are involved in this recall. **The model TDS 224 oscilloscope is not subject to this recall.**

20. Who will pay for the freight?

Tektronix will pay the freight costs associated with this recall, whether for single or multiple units.

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INTER-OFFICE COMMUNICATION

To: Regional Sales & Marketing teams August 19, 1999

From: Pete Holman
MBD Quality Director
Phone: 503 627-7360, Fax: 503 627-5532
M/S: 46/532

Copy: Steve Hendrickson 39-122

Subject: TDS200 series & THM420 recall implementation

This IOC is intended to update the regional sales & marketing teams on the implementation schedule for the phase II TDS210/TDS220 and sustaining THM420 recall efforts.

We are now ready to implement the second phase of the TDS210/TDS200 recall and a sustaining phase for the THM420 recall. The rationale for these actions and documentation used in these efforts are highlighted in the included documentation.

Implementation schedule:

- Tektronix Web Safety & Recall site goes live September 3, 1999.
www.safety.tektronix.com

This includes TDS210, TDS220 & THM420 recall information

- TDS210 & TDS220 US Customer direct mail effort is implemented September 7, 1999.
- Worldwide THM420 used equipment & third party calibration company direct mail effort is targeted for September 27, 1999.
- European TDS210 & TDS220 customer/distributor direct mail effort is targeted for end of October 1999. (customer targeting effort is just starting)
- Pacific TDS210 & TDS220 customer/distributor direct mail is targeted for November 1999. (customer targeting process needs to start soon)

The following documentation is enclosed with this IOC:

- Management presentation
- Distributor letter
- Customer letter
- FAQ for TDS200 and THM420

Please review this information at your staff meetings, and ensure appropriate personnel in your organization are aware of this activity, prior to the September 3rd date.

If you have any questions about this effort, please give me a call. Thank you for your support with this effort.

Pete Holman

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Service Update Plan #40-003 - Attachment #9

The Customer "Thank You" letter on the next page should be included in each product returned to a customer after completion of the modification. Copy it onto your Local Letterhead.

Do not put the letter into products modified for Distributor Inventory stock.

Dear Tektronix Customer,

Thank you for participating in the TDS200 recall.

We are pleased to inform you that your instrument has been successfully modified. The modification which was performed had no impact on measurement accuracy, therefore the current calibration status remains intact.

If a calibration void seal was broken, it has been replaced with a Tektronix Calibration Void seal. If a calibration label had to be replaced, the original information was transferred to a replacement Tektronix Traceable Calibration label.

In some instances it might have been necessary to replace the power supply. If this occurred, the unit was recalibrated as part of the modification process.

At Tektronix we are committed to providing reliable, safe and high quality products, and we appreciate your participation in this recall effort.

Best regards,

A handwritten signature in black ink, appearing to read "Peter Holman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Peter Holman, Director of Quality

Service Update Plan #40-003 - Attachment #10

The Customer "Your product serial number is not included in the Recall program" letter on the next page should be returned with the customer's product if the product was above the affected serial number range. If you receive a product that is outside the affected serial number range, include the "Thank you" letter (attachment # 10).

Copy the letter onto your Local Letterhead.

Do not put the letter into products being returned for Distributor Inventory stock.

Dear Tektronix Customer,

Thank you for participating in the TDS200 recall.

Your TDS200 was recently manufactured, and had a serial number that was not specified in the recall notification. As a result, the instrument did not require any modification.

At Tektronix we are committed to providing reliable, safe and high quality products, and we appreciate your participation in this recall effort.

Best regards,

A handwritten signature in black ink, appearing to read "Peter Holman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Peter Holman
Director of Quality

Service Update Plan #40-003 - Attachment #11

The Customer "The product type you returned is not included in the Recall program" letter on the next page should be returned if the customer sends in a product other than a TDS210 or TDS220 for this Recall Program. If you receive a non-TDS210/TDS220 product, include the "Thank you" letter (attachment # 11)

Copy the letter onto your Local Letterhead.

Dear Tektronix Customer,

Thank you for participating in the TDS200 recall.

Your instrument was not a model that was recalled, and was not specified in the recall notification. As a result, the instrument was not modified.

At Tektronix we are committed to providing reliable, safe and high quality products, and we appreciate your participation in this recall effort.

Best regards,

A handwritten signature in black ink, appearing to read "Peter Holman", with a long horizontal flourish extending to the right.

Peter Holman
Director of Quality

Service Update Plan #40-003 - Attachment #12

The Customer "Your unit was already modified" letter on the next page should be returned if the customer sends in a TDS210 or TDS220 product which has already been modified as part of this Recall Program. If you receive an already-modified TDS210/TDS220 product, include the "Thank you" letter (attachment # 12)

Copy the letter onto your Local Letterhead.

Do not put the letter into products being returned for Distributor Inventory stock.

Dear Tektronix Customer,

Thank you for participating in the TDS200 recall.

Upon receipt of your instrument we noticed that the safety modification sticker (white, 1.25 in. x 0.5 in.) which reads: Tektronix, P.S. Mod 40-003) was already in place on the back panel. We then checked the Recall database and confirmed that your instrument information (model and serial number) was included in the database records, indicating that the safety modification had already been performed. As a result, the instrument did not require any modification.

At Tektronix we are committed to providing reliable, safe and high quality products, and we appreciate your participation in this recall effort.

Best regards,

A handwritten signature in black ink, appearing to read "Peter Holman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Peter Holman
Director of Quality

Service Update Plan #40-003 - Attachment #13

Country	Sales	Modifications	Country	Sales	Modifications
Recall Modification Data as of 8/20/99					
United States	16513	9164	Algeria	2	0
			Aruba	0	1
EUROPE:			Australia	2171	1450
Albania	320	0	Brazil	0	258
Austria	1407	521	Canada	2886	1296
Belgium	417	314	China	595	907
Bulgaria	0	1	Columbia	0	91
Croatia	7	0	Ecuador	0	33
Czech Republic	97	0	Faroe Islands	0	1
Denmark	612	348	French Guiana	0	7
Deutschland	0	19	Hong Kong	1706	96
Estonia	0	1	India	1060	5
Finland	600	394	Indonesia	77	42
France	4774	3200	Israel	973	695
Germany	8154	4539	Japan	4528	2546
Greece	1	4	Korea	2788	966
Greenland	0	1	Malaysia	432	335
Hungary	185	0	Mexico	988	270
Iceland	15	1	Morocco	1	0
Ireland	0	181	New Zealand	51	1
Italy	3758	2001	Nigeria	1	0
Luxembourg	14	27	Peru	0	42
Madagascar	1	0	Philippines	32	53
N Ireland	0	31	Saudi Arabia	0	4
Netherlands	1119	432	Singapore	591	373
Norway	422	282	S. Africa	321	1
Poland	85	145	Sri Lanka	0	1
Portugal	142	78	Taiwan	4775	2237
Russia	20	9	Thailand	520	506
San Marino	0	1	Tunisia	77	0
Scotland	0	6	Turkey	10	0
Slovakia	0	1	United Arab E.	2	0
Slovenia	0	3	Yemen	210	0
Spain	1506	522	Zambia	0	2
Sweden	1418	845	Zimbabwe	1	0
Switzerland	1244	483			
Ukraine	1	1	Totals	70734	37701
United Kingdom	3100	1927			
Yugoslavia	4	0			