

# ThinkPad<sup>®</sup> G40 Series Service and Troubleshooting Guide



# ThinkPad<sup>®</sup> G40 Series Service and Troubleshooting Guide

**Note**

Before using this information and the product it supports, be sure to read the general information under "Important safety information" on page v, Appendix A, "Wireless related information," on page 41, Appendix B, "Warranty information," on page 45, and Appendix D, "Notices," on page 73.

**Second Edition (June 2005)**

**© Copyright Lenovo 2005.**

**Portions © Copyright International Business Machines Corporation 2005.**

**All rights reserved.**

U.S. GOVERNMENT USERS – RESTRICTED RIGHTS: Our products and/or services are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the Government is subject to the GSA ADP Schedule contract with Lenovo Group Limited, if any, or the standard terms of this commercial license, or if the agency is unable to accept this Program under these terms, then we provide this Program under the provisions set forth in Commercial Computer Software–Restricted Rights at FAR 52.227-19, when applicable, or under Rights in Data-General, FAR 52.227.14 (Alternate III).

---

# Contents

<b>Important safety information</b> . . . . .	<b>v</b>
Conditions that require immediate action . . . . .	v
General safety guidelines . . . . .	vi
Service . . . . .	vi
Power cords and power adapters . . . . .	vii
Extension cords and related devices . . . . .	viii
Plugs and outlets . . . . .	viii
Batteries . . . . .	viii
Heat and product ventilation . . . . .	ix
CD and DVD drive safety . . . . .	x
Additional safety information . . . . .	x
Laser compliance statement . . . . .	xiv
<b>Important notice for users</b> . . . . .	<b>xvii</b>
Important regulatory notice for users . . . . .	xvii
Information about hard disk capacity . . . . .	xvii
<b>Finding information with Access IBM</b> . . . . .	<b>xix</b>
<b>Chapter 1. Overview of your new ThinkPad computer</b> . . . . .	<b>1</b>
Your ThinkPad at a glance . . . . .	2
Features . . . . .	3
Specifications . . . . .	5
Caring for your ThinkPad computer . . . . .	6
<b>Chapter 2. Solving computer problems</b> . . . . .	<b>11</b>
Diagnosing problems . . . . .	12
Troubleshooting . . . . .	12
Error messages . . . . .	12
Errors without messages . . . . .	17
A password problem . . . . .	18
A power switch problem . . . . .	19
Keyboard problems . . . . .	19
TrackPoint problems . . . . .	20
Standby or hibernation problems . . . . .	21
Computer screen problems . . . . .	23
Battery problems . . . . .	25
Hard disk drive problems . . . . .	25
A startup problem . . . . .	26
Other problems . . . . .	28
Starting BIOS Setup Utility . . . . .	30
Recovering pre-installed software . . . . .	31
Upgrading the hard disk drive . . . . .	32
Replacing the battery . . . . .	34
<b>Chapter 3. Getting help and service</b> . . . . .	<b>37</b>
Getting help and service . . . . .	38
Getting help on the Web . . . . .	38
Calling the Customer Support Center . . . . .	38
Getting help around the world . . . . .	39
<b>Appendix A. Wireless related information</b> . . . . .	<b>41</b>
Wireless interoperability . . . . .	41
Usage environment and your health . . . . .	41
Authorized Operation Within the United States and Canada . . . . .	42
Enabling Extended Channel Mode . . . . .	42
<b>Appendix B. Warranty information</b> . . . . .	<b>45</b>
Lenovo Statement of Limited Warranty . . . . .	45
Part 1 - General Terms . . . . .	45
Part 2 - Country-unique Terms . . . . .	49
Part 3 - Warranty Information . . . . .	63
Guarantee supplement for Mexico . . . . .	68
<b>Appendix C. Customer Replaceable Units (CRUs)</b> . . . . .	<b>71</b>
<b>Appendix D. Notices</b> . . . . .	<b>73</b>
Notices . . . . .	73
Television output notice . . . . .	74
Electronic emissions notices . . . . .	74
Federal Communications Commission (FCC) Declaration of Conformity . . . . .	74
Industry Canada Class B emission compliance statement . . . . .	75
European Union EMC Directive conformance statement . . . . .	75
Environmental notices for Japan . . . . .	76
IBM Lotus Software Offer . . . . .	77
Trademarks . . . . .	79
<b>Index</b> . . . . .	<b>81</b>



---

## Σημαντικές οδηγίες σχετικά με την ασφάλεια

### Σημείωση

Παρακαλούμε διαβάστε πρώτα τις σημαντικές πληροφορίες για την ασφάλεια.

Οι πληροφορίες αυτές μπορούν να σας βοηθήσουν να χρησιμοποιείτε τον προσωπικό σας υπολογιστή ThinkPad με ασφάλεια. Ακολουθήστε και φυλάξτε όλες τις πληροφορίες που παρέχονται μαζί με τον υπολογιστή σας. Οι πληροφορίες που περιέχονται σε αυτό το έγγραφο δεν τροποποιούν τους όρους της σύμβασης αγοράς που συνάψατε ούτε τη Δήλωση Περιορισμένης Εγγύησης της Lenovo.

Η ασφάλεια των πελατών μας είναι σημαντική. Τα προϊόντα μας είναι σχεδιασμένα να είναι ασφαλή και αποτελεσματικά. Ωστόσο, οι προσωπικοί υπολογιστές είναι ηλεκτρονικές συσκευές. Τα καλώδια ρεύματος, οι μετασχηματιστές και άλλα εξαρτήματά τους μπορούν να δημιουργήσουν κινδύνους που θα μπορούσαν να έχουν ως αποτέλεσμα την πρόκληση τραυματισμών ή ζημιών, ειδικά σε περίπτωση κακής χρήσης τους. Για να μειώσετε αυτούς τους κινδύνους, ακολουθήστε τις οδηγίες που παρέχονται με το προϊόν σας, δώστε σημασία σε όλες τις προειδοποιήσεις που υπάρχουν στο προϊόν και στις οδηγίες λειτουργίας και διαβάστε προσεκτικά όλες τις πληροφορίες που περιέχονται σε αυτό το έγγραφο. Ακολουθώντας προσεκτικά τις πληροφορίες που περιέχονται σε αυτό το έγγραφο και παρέχονται με το προϊόν σας, μπορείτε να συμβάλετε στην προστασία σας από κινδύνους και να δημιουργήσετε ένα ασφαλέστερο περιβάλλον εργασίας.

**Σημείωση:** Οι πληροφορίες αυτές περιέχουν αναφορές σε μετασχηματιστές και μπαταρίες. Πέραν των φορητών προσωπικών υπολογιστών, ορισμένα προϊόντα (π.χ. ηχεία και οθόνες) παρέχονται με εξωτερικούς μετασχηματιστές. Αν έχετε ένα τέτοιο προϊόν, οι πληροφορίες αυτές ισχύουν για το προϊόν σας. Επιπρόσθετα, ο υπολογιστής σας μπορεί να περιέχει μια εσωτερική μπαταρία σε μέγεθος νομίσματος, η οποία τροφοδοτεί με ηλεκτρικό ρεύμα το ρολόι του συστήματός σας ακόμα και όταν ο υπολογιστής είναι αποσυνδεδεμένος. Επομένως οι πληροφορίες σχετικά με την ασφάλεια των μπαταριών ισχύουν για όλους τους υπολογιστές.

---

## Καταστάσεις που πρέπει να αντιμετωπίζονται άμεσα

Τα προϊόντα μπορούν να υποστούν ζημιές λόγω κακής χρήσης ή αμέλειας. Σε ορισμένες περιπτώσεις, οι ζημιές ίσως είναι τόσο σοβαρές ώστε το προϊόν να μην πρέπει να χρησιμοποιηθεί ξανά έως ότου ελεγχθεί και, αν είναι αναγκαίο, επισκευαστεί από εξουσιοδοτημένο τεχνικό.

Όπως και με κάθε ηλεκτρονική συσκευή, πρέπει να προσέχετε το προϊόν όταν βρίσκεται σε λειτουργία. Σε πολύ σπάνιες περιπτώσεις, μπορεί να αντιληφθείτε μια οσμή ή να παρατηρήσετε καπνό ή σπίθες να εξέρχονται από τον υπολογιστή σας. Επίσης, μπορεί να ακούσετε ήχους που υποδηλώνουν κάποιο πρόβλημα. Οι συνθήκες αυτές ίσως απλά να σημαίνουν ότι έχει υποστεί βλάβη κάποιο εσωτερικό εξάρτημα, με ασφαλή και ελεγχόμενο τρόπο. Ίσως όμως υποδηλώνουν πιθανό πρόβλημα ασφάλειας. Ωστόσο, μη διακινδυνεύσετε και μην προσπαθήσετε να διαγνώσετε το πρόβλημα μόνοι σας.

Ελέγχετε συχνά τον υπολογιστή σας και τα εξαρτήματά του, ώστε να εντοπίζετε τυχόν ζημιές, φθορά ή ενδείξεις κινδύνου. Αν υπάρχει οποιαδήποτε αβεβαιότητα σχετικά με την κατάσταση ενός εξαρτήματος, μη χρησιμοποιήσετε το προϊόν. Επικοινωνήστε με το Κέντρο Υποστήριξης Πελατών ή με τον κατασκευαστή του προϊόντος για οδηγίες σχετικά με τον έλεγχο του προϊόντος και, αν είναι απαραίτητο, την επισκευή του. Στην ενότητα “Worldwide telephone list” στη σελίδα 59 μπορείτε να βρείτε έναν κατάλογο με τους αριθμούς τηλεφώνου που μπορείτε να καλέσετε για να ζητήσετε υπηρεσίες επισκευής και υποστήριξης.

Στην απίθανη περίπτωση που παρατηρήσετε οποιαδήποτε από τις συνθήκες που αναφέρονται παρακάτω, ή αν έχετε οποιοσδήποτε ανησυχίες σχετικά με την ασφάλεια του προϊόντος, σταματήστε να το χρησιμοποιείτε και αποσυνδέστε το από την πρίζα και από τις τηλεπικοινωνιακές γραμμές έως ότου επικοινωνήσετε με το Κέντρο Υποστήριξης Πελατών για περαιτέρω καθοδήγηση.

- Καλώδια ρεύματος, φως, μετασχηματιστές, επεκτάσεις καλωδίων, συσκευές προστασίας από υπέρταση ή τροφοδοτικά που έχουν κοπεί, ραγίσει, σπάσει ή υποστεί ζημιές.
- Ενδείξεις υπερθέρμανσης, καπνού, σπίθας ή φωτιάς.
- Ζημιές σε μια μπαταρία (όπως ρωγμές ή παραμόρφωση), αποφόρτιση μπαταρίας ή συσσώρευση ξένων ουσιών επάνω στη μπαταρία.
- Περίεργοι ήχοι ή δυνατή οσμή προερχόμενη από το προϊόν.
- Ενδείξεις ότι έχει χυθεί υγρό ή έχει πέσει κάποιο αντικείμενο επάνω στον υπολογιστή, το καλώδιο ρεύματος ή το μετασχηματιστή.
- Έκθεση του υπολογιστή, του καλωδίου ρεύματος ή του μετασχηματιστή σε νερό.
- Πτώση του προϊόντος ή άλλες ζημιές στο προϊόν.
- Μη κανονική λειτουργία του προϊόντος παρά τη χρήση του σύμφωνα με τις οδηγίες λειτουργίας.



**Σημείωση:** Αν παρατηρήσετε τέτοιες συνθήκες σε προϊόν (π.χ. μια επέκταση καλωδίου) που δεν έχει κατασκευαστεί από ή για τη Lenovo, σταματήστε να χρησιμοποιείτε αυτό το προϊόν έως ότου επικοινωνήσετε με τον κατασκευαστή του προϊόντος για περαιτέρω οδηγίες, ή έως ότου προμηθευτείτε κατάλληλο προϊόν αντικατάστασης.

---

## Γενικές οδηγίες ασφάλειας

Τηρείτε πάντα τις ακόλουθες προφυλάξεις για να μειώσετε τον κίνδυνο τραυματισμού και πρόκλησης ζημιών.

### Συντήρηση

Μην επιχειρήσετε να κάνετε συντήρηση ενός προϊόντος μόνοι σας, εκτός αν σας ζητηθεί συγκεκριμένα από το Κέντρο Υποστήριξης Πελατών. Χρησιμοποιείτε μόνο εξουσιοδοτημένο παροχέα υπηρεσιών, εγκεκριμένο για την επισκευή του συγκεκριμένου προϊόντος.

**Σημείωση:** Ορισμένα εξαρτήματα μπορούν να αναβαθμιστούν ή να αντικατασταθούν από τον πελάτη. Τα εξαρτήματα αυτά ονομάζονται Μονάδες Αντικαθιστώμενες από τον Πελάτη (Customer Replaceable Units - CRU). Η Lenovo προσδιορίζει ρητώς τα εξαρτήματα που αποτελούν μονάδες CRU και παρέχει τεκμηρίωση με οδηγίες όταν ενδείκνυται η αντικατάστασή τους από τον πελάτη. Πρέπει να ακολουθείτε πιστά όλες αυτές τις οδηγίες όταν αντικαθιστάτε μονάδες CRU. Να βεβαιώνετε πάντα ότι έχετε σβήσει και αποσυνδέσει το προϊόν από οποιαδήποτε πηγή ρεύματος πριν επιχειρήσετε να πραγματοποιήσετε την αντικατάσταση. Για οποιεσδήποτε ερωτήσεις ή διευκρινίσεις, επικοινωνήστε με το Κέντρο Υποστήριξης Πελατών.

Αν και δεν υπάρχουν κινητά μέρη στον υπολογιστή αφού αποσυνδέσετε το καλώδιο ρεύματος, απαιτούνται οι ακόλουθες ειδοποιήσεις για λόγους πιστοποίησης UL.



**ΚΙΝΔΥΝΟΣ**

**Επικίνδυνα κινητά μέρη. Αποφύγετε την επαφή με τα δάχτυλά σας και με άλλα μέρη του σώματος.**

**Προσοχή:** Προτού ξεκινήσετε την αντικατάσταση μονάδων CRU, κλείστε τον υπολογιστή και περιμένετε τρία έως πέντε λεπτά μέχρι να μειωθεί η θερμοκρασία στο εσωτερικό του υπολογιστή πριν ανοίξετε το κάλυμμα.

## Καλώδια ρεύματος και μετασχηματιστές

Χρησιμοποιείτε μόνο τα καλώδια ρεύματος και τους μετασχηματιστές που παρέχονται από τον κατασκευαστή του προϊόντος. Το καλώδιο ρεύματος και ο μετασχηματιστής προορίζονται αποκλειστικά για χρήση με αυτό το προϊόν. Δεν πρέπει να χρησιμοποιηθούν σε καμία περίπτωση με οποιοδήποτε άλλο προϊόν.

Ποτέ μην τυλίγετε ένα καλώδιο ρεύματος γύρω από το μετασχηματιστή ή άλλο αντικείμενο. Αν το κάνετε, μπορεί το καλώδιο να καταπονηθεί, με αποτέλεσμα να φθαρεί, να κοπεί ή να τσακίσει. Αυτό μπορεί να είναι επικίνδυνο.

Να εξασφαλίζετε πάντα ότι τα καλώδια ρεύματος δεν περνούν από σημεία όπου μπορεί να πατηθούν, να γίνουν αιτία να σκοντάψει κάποιος ή να τρυπηθούν από αντικείμενα.

Να προστατεύετε τα καλώδια και τους μετασχηματιστές από υγρά. Για παράδειγμα, μην αφήνετε τα καλώδια ή τους μετασχηματιστές κοντά σε νεροχύτες, μπανιέρες ή τουαλέτες, ή σε δάπεδα που καθαρίζονται με υγρά καθαριστικά. Τα υγρά μπορούν να προκαλέσουν βραχυκύκλωμα, ειδικά αν το καλώδιο ή ο μετασχηματιστής έχει φθαρεί λόγω κακής χρήσης. Τα υγρά μπορούν επίσης να προκαλέσουν σταδιακή διάβρωση των ακροδεκτών του καλωδίου ρεύματος ή/και του μετασχηματιστή, κάτι που μπορεί να προκαλέσει υπερθέρμανση.

Πάντα να συνδέετε τα καλώδια ρεύματος και τα καλώδια σήματος με τη σωστή σειρά και να εξασφαλίζετε ότι όλα τα καλώδια ρεύματος έχουν συνδεθεί πλήρως και με ασφάλεια στις υποδοχές.

Μη χρησιμοποιήσετε οποιονδήποτε μετασχηματιστή στον οποίο υπάρχουν ενδείξεις διάβρωσης στους ακροδέκτες εισόδου εναλλασσομένης τάσης ή/και ενδείξεις υπερθέρμανσης (π.χ. παραμορφωμένο πλαστικό) στην είσοδο εναλλασσομένης τάσης ή σε οποιοδήποτε σημείο του μετασχηματιστή.

Μη χρησιμοποιείτε καλώδια ρεύματος στα οποία υπάρχουν ενδείξεις διάβρωσης ή υπερθέρμανσης στους ακροδέκτες σε οποιοδήποτε άκρο ή αν το καλώδιο έχει υποστεί οποιοσδήποτε φθορές.

## Επεκτάσεις καλωδίων και σχετικές συσκευές

Εξασφαλίστε ότι οι επεκτάσεις καλωδίων, οι συσκευές προστασίας από υπέρταση, οι μονάδες αδιάλειπτης παροχής ρεύματος και τα πολύπριζα που χρησιμοποιείτε καλύπτουν τις ηλεκτρικές προδιαγραφές του προϊόντος. Ποτέ μην υπερφορτώνετε αυτές τις συσκευές. Αν χρησιμοποιηθούν πολύπριζα, το φορτίο δεν πρέπει να υπερβαίνει τις προδιαγραφές του πολύπριζου. Για οποιεσδήποτε ερωτήσεις σχετικά με τα ηλεκτρικά φορτία και τις προδιαγραφές, συμβουλευτείτε έναν ηλεκτρολόγο.

## Φις και πρίζες

Αν κάποια πρίζα που σκοπεύετε να χρησιμοποιήσετε με τον υπολογιστή έχει ενδείξεις ζημιών ή διάβρωσης, μην τη χρησιμοποιήσετε έως ότου αντικατασταθεί από ηλεκτρολόγο.

Μη λυγίζετε ή τροποποιείτε το φις. Αν το φις έχει υποστεί ζημίες, επικοινωνήστε με τον κατασκευαστή για να το αντικαταστήσετε.

Ορισμένα προϊόντα έχουν φις τριών ακροδεκτών. Το φις αυτό μπορεί να συνδεθεί μόνο σε γειωμένη ηλεκτρική πρίζα. Αυτό γίνεται για λόγους ασφάλειας. Μην παρακάμψετε αυτή την προφύλαξη επιχειρώντας να συνδέσετε το φις σε μη γειωμένη πρίζα. Αν δεν μπορείτε να συνδέσετε το φις στην πρίζα, επικοινωνήστε με έναν ηλεκτρολόγο για να προμηθευτείτε έναν εγκεκριμένο προσαρμογέα ή για να αντικαταστήσετε την πρίζα με άλλη, κατάλληλη πρίζα. Ποτέ μην υπερφορτώνετε μια πρίζα. Το συνολικό φορτίο του συστήματος δεν πρέπει να υπερβαίνει το 80% του φορτίου που προβλέπεται από τις προδιαγραφές του κυκλώματος διακλάδωσης. Για οποιεσδήποτε ερωτήσεις σχετικά με τα ηλεκτρικά φορτία και τις προδιαγραφές του κυκλώματος διακλάδωσης, συμβουλευτείτε έναν ηλεκτρολόγο.

Βεβαιωθείτε ότι η πρίζα ρεύματος που χρησιμοποιείτε είναι σωστά καλωδιωμένη, εύκολα προσβάσιμη και βρίσκεται κοντά στον εξοπλισμό. Μην τεντώνετε τα καλώδια ρεύματος με τρόπο που μπορεί να προκαλέσει φθορά στα καλώδια.

Συνδέετε και αποσυνδέετε τον εξοπλισμό προσεκτικά από την πρίζα.

## Μπαταρίες

Όλοι οι προσωπικοί υπολογιστές που κατασκευάζονται από τη Lenovo περιέχουν μια μη επαναφορτιζόμενη μπαταρία που παρέχει ηλεκτρικό ρεύμα στο ρολόι του συστήματος. Επίσης, πολλά φορητά προϊόντα, όπως οι φορητοί υπολογιστές ThinkPad, χρησιμοποιούν μια επαναφορτιζόμενη μπαταρία για την παροχή ρεύματος στο σύστημα όταν δεν είναι συνδεδεμένο σε πρίζα. Οι μπαταρίες που παρέχονται από την Lenovo για χρήση με το προϊόν σας έχουν υποβληθεί σε δοκιμές συμβατότητας και πρέπει να αντικαθίστανται μόνο με εγκεκριμένες μπαταρίες.

Ποτέ μην επιχειρήσετε να ανοίξετε ή να επισκευάσετε μια μπαταρία. Μην χτυπήσετε, τρυπήσετε ή κάψετε μπαταρίες και μη βραχυκυκλώσετε τις μεταλλικές επαφές. Μην εκθέσετε τη μπαταρία σε νερό ή άλλα υγρά. Η επαναφόρτιση της μπαταρίας πρέπει να γίνεται μόνο σύμφωνα με τις οδηγίες που περιλαμβάνονται στην τεκμηρίωση του προϊόντος.

Η κακή χρήση ή ο κακός χειρισμός μπαταριών μπορεί να προκαλέσει υπερθέρμανση της μπαταρίας, η οποία μπορεί να έχει ως αποτέλεσμα την έκλυση αερίων ή φλόγας από τη μπαταρία. Αν η μπαταρία σας έχει υποστεί βλάβη ή αν παρατηρήσετε οποιαδήποτε διαρροή από τη μπαταρία ή συσσώρευση υλικών στα

άκρα της μπαταρίας, σταματήστε να τη χρησιμοποιείτε και αντικαταστήστε τη με καινούργια από τον κατασκευαστή της μπαταρίας.

Οι μπαταρίες μπορούν να υποστούν βλάβη όταν παραμένουν αχρησιμοποίητες για μεγάλες χρονικές περιόδους. Για ορισμένες επαναφορτιζόμενες μπαταρίες (και ειδικά για μπαταρίες λιθίου-ιόντων), η παραμονή της μπαταρίας εκτός χρήσης σε κατάσταση αποφόρτισης μπορεί να αυξήσει τον κίνδυνο βραχυκύκλωσης της μπαταρίας, η οποία μπορεί να μικρύνει τη διάρκεια ζωής της μπαταρίας, αλλά και να αποτελέσει κίνδυνο για την ασφάλεια. Μην αφήνετε τις επαναφορτιζόμενες μπαταρίες λιθίου-ιόντων να αποφορτίζονται πλήρως και μην τις αποθηκεύετε σε κατάσταση αποφόρτισης.

## Θερμότητα και εξαιρισμός

Οι υπολογιστές παράγουν θερμότητα όταν βρίσκονται σε λειτουργία καθώς και κατά τη φόρτιση των μπαταριών. Οι φορητοί υπολογιστές παράγουν σημαντική ποσότητα θερμότητας λόγω του μικρού τους μεγέθους. Τηρείτε πάντα τις ακόλουθες προφυλάξεις:

- Μην αφήνετε τη βάση του υπολογιστή σε επαφή με το μηρό ή άλλο μέρος του σώματός σας για μεγάλο χρονικό διάστημα όταν είναι σε λειτουργία ο υπολογιστής ή όταν φορτίζεται η μπαταρία. Ο υπολογιστής παράγει κάποια θερμότητα κατά τη διάρκεια της κανονικής λειτουργίας του. Η παρατεταμένη επαφή με το σώμα μπορεί να προκαλέσει δυσφορία ή ακόμα και εγκαύματα.
- Μη χρησιμοποιείτε τον υπολογιστή ή φορτίζετε την μπαταρία κοντά σε εύφλεκτα υλικά ή σε περιβάλλον όπου υπάρχει κίνδυνος εκρήξεων.
- Οι σχισμές εξαιρισμού, οι ανεμιστήρες ή/και οι ψύκτρες του προϊόντος παρέχονται για σκοπούς ασφάλειας, άνεσης και αξιόπιστης λειτουργίας. Εάν τοποθετήσετε το προϊόν επάνω σε κρεβάτι, καναπέ, χαλί ή άλλη μη σταθερή επιφάνεια ίσως φράξετε κατά λάθος αυτά τα εξαρτήματα. Ποτέ μην φράσσετε, καλύπτετε ή απενεργοποιείτε αυτά τα εξαρτήματα.

Πρέπει να ελέγχετε τον επιτραπέζιο υπολογιστή σας για συσσώρευση σκόνης κάθε τρεις μήνες. Πριν από τον έλεγχο, απενεργοποιήστε τον υπολογιστή και αποσυνδέστε το καλώδιο παροχής ρεύματος από την πρίζα. Στη συνέχεια, αφαιρέστε τη σκόνη από τα ανοίγματα εξαιρισμού καθώς και από τις οπές στην πρόσοψη. Εάν παρατηρήσετε συσσώρευση σκόνης στο εξωτερικό του υπολογιστή, πρέπει να ελέγξετε και το εσωτερικό του υπολογιστή και αν αφαιρέσετε τη σκόνη από την ψύκτρα, τα ανοίγματα εξαιρισμού του τροφοδοτικού και τους ανεμιστήρες. Πριν ανοίξετε το κάλυμμα του υπολογιστή απενεργοποιήστε τον υπολογιστή και αποσυνδέστε το καλώδιο παροχής ρεύματος. Εάν είναι δυνατόν, αποφύγετε τη χρήση του υπολογιστή σε σημεία όπου παρατηρείται ιδιαίτερα αυξημένη κινητικότητα. Εάν αυτό δεν είναι δυνατό, θα πρέπει να ελέγχετε και, αν είναι απαραίτητο, να καθαρίζετε τον υπολογιστή σας συχνότερα.

Για την ασφάλειά σας και για τη βελτιστοποίηση της απόδοσης του υπολογιστή, να παίρνετε πάντα τις ακόλουθες βασικές προφυλάξεις όσον αφορά τον επιτραπέζιο υπολογιστή:

- Όταν ο υπολογιστής είναι συνδεδεμένος σε πρίζα παροχής ρεύματος, να διατηρείτε το κάλυμμα του κλειστό.
- Να ελέγχετε συχνά το περίβλημα του υπολογιστή για συσσώρευση σκόνης.
- Να αφαιρείτε τη σκόνη από τα ανοίγματα εξαερισμού καθώς και από τις οπές στην πρόσοψη. Σε σημεία με ιδιαίτερη κινητικότητα και υψηλή συσσώρευση σκόνης, απαιτείται συχνότερος καθαρισμός.
- Μην αποκόψετε και μην περιορίσετε τη ροή του αέρα μπροστά από τον υπολογιστή.
- Μην φράζετε τα ανοίγματα εξαερισμού στο πίσω μέρος του υπολογιστή.
- Μην αποθηκεύετε και μη χρησιμοποιείτε τον υπολογιστή μέσα σε έπιπλα καθώς έτσι αυξάνεται ο κίνδυνος υπερθέρμανσης.
- Η θερμοκρασία της ροής του αέρα στο εσωτερικό του υπολογιστή δεν πρέπει να υπερβαίνει τους 35° C.
- Μη χρησιμοποιείτε συσκευές φιλτραρίσματος αέρα που δεν έχουν σχεδιαστεί για το ThinkCentre.

## **Ασφάλεια των μονάδων CD και DVD**

Οι μονάδες CD και DVD περιστρέφουν δίσκους με μεγάλη ταχύτητα. Αν κάποιο CD ή DVD έχει ρωγμές ή άλλη φυσική ζημιά, μπορεί να σπάσει ή να διαλυθεί κατά τη χρήση της μονάδας CD. Για να προστατευθείτε από πιθανό τραυματισμό σε τέτοια περίπτωση και να μειώσετε το κίνδυνο βλάβης του υπολογιστή σας, κάντε τα ακόλουθα:

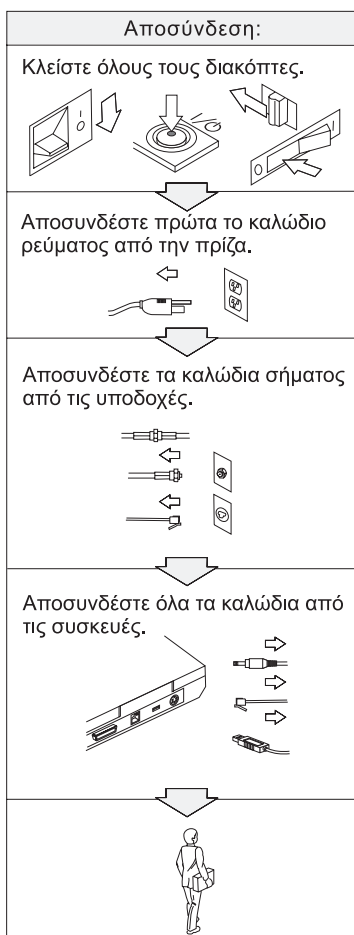
- Αποθηκεύετε πάντα τους δίσκους CD/DVD στην αρχική τους συσκευασία.
- Αποθηκεύετε πάντα τους δίσκους CD/DVD μακριά από τις ακτίνες του ήλιου και από πηγές θερμότητας.
- Αφαιρείτε τους δίσκους CD/DVD από τον υπολογιστή όταν δεν χρησιμοποιούνται.
- Μη λυγίζετε τους δίσκους CD/DVD και μην τους βάζετε βίαια μέσα στον υπολογιστή ή στη θήκη τους.
- Ελέγχετε τους δίσκους CD/DVD πριν από κάθε χρήση για να βεβαιωθείτε ότι δεν έχουν ρωγμές. Μη χρησιμοποιείτε δίσκους που έχουν ρωγμές ή άλλες ζημιές.

## Πρόσθετες πληροφορίες ασφάλειας



### ΚΙΝΔΥΝΟΣ

Το ηλεκτρικό ρεύμα στα καλώδια ρεύματος, τηλεφώνου και επικοινωνίας είναι επικίνδυνο. Για να αποφύγετε τον κίνδυνο ηλεκτροπληξίας, όταν εγκαθιστάτε, μετακινείτε ή ανοίγετε τα καλύμματα του προϊόντος ή των προσαρτημένων συσκευών, συνδέετε και αποσυνδέετε τα καλώδια όπως περιγράφεται παρακάτω. Αν παρέχεται τριγωνικό καλώδιο ρεύματος με αυτό το προϊόν, πρέπει να συνδεθεί σε σωστά γειωμένη πρίζα.





## **ΚΙΝΔΥΝΟΣ**

**Μειώστε τον κίνδυνο πυρκαγιάς και ηλεκτροπληξίας τηρώντας πάντα τις βασικές προφυλάξεις, όπως:**

- **Μη χρησιμοποιείτε τον υπολογιστή μέσα ή κοντά σε νερό.**
- **Κατά τη διάρκεια καταιγίδας:**
  - **Μη χρησιμοποιείτε τον υπολογιστή σας με καλωδιακή τηλεφωνική σύνδεση.**
  - **Μη συνδέετε ή αποσυνδέετε το καλώδιο από την τηλεφωνική υποδοχή στον τοίχο.**



## **ΚΙΝΔΥΝΟΣ**

**Το πακέτο μπαταριών πρέπει να αποθηκεύεται σε θερμοκρασία δωματίου, φορτισμένο σε ποσοστό περίπου 30 - 50 % της χωρητικότητάς του. Συνιστούμε το πακέτο μπαταριών να φορτίζεται μία φορά ετησίως, ώστε να αποφεύγεται η υπερβολική αποφόρτισή του.**



## **ΚΙΝΔΥΝΟΣ**

**Αν το πακέτο επαναφορτίσιμων μπαταριών δεν αντικατασταθεί με το σωστό τρόπο, υπάρχει κίνδυνος έκρηξης. Το πακέτο μπαταριών περιέχει μικρή ποσότητα επιβλαβών ουσιών. Για να αποφύγετε τυχόν τραυματισμό:**

- **Αντικαταστήστε τη μπαταρία μόνο με μπαταρία του προτεινόμενου από τη Lenovo τύπου.**
- **Κρατήστε το πακέτο μπαταριών μακριά από φωτιά.**
- **Μην το εκθέσετε σε νερό ή βροχή.**
- **Μην επιχειρήσετε να το αποσυναρμολογήσετε.**
- **Μην το βραχυκυκλώσετε.**
- **Κρατήστε το μακριά από παιδιά.**

**Μην πετάτε το πακέτο μπαταριών σε απορρίμματα που καταλήγουν σε χωματερές ή χώρους υγειονομικής ταφής απορριμμάτων. Η απόρριψη της μπαταρίας πρέπει να γίνεται σύμφωνα με τις τοπικές διατάξεις ή κανονισμούς και τις προδιαγραφές ασφάλειας της εταιρείας σας.**



## ΚΙΝΔΥΝΟΣ

Αν η εφεδρική μπαταρία δεν αντικατασταθεί με το σωστό τρόπο, υπάρχει κίνδυνος έκρηξης.

Η μπαταρία λιθίου περιέχει λίθιο και μπορεί να εκραγεί αν ο χειρισμός ή η απόρριψή της δεν γίνει με το σωστό τρόπο.

Αντικαταστήστε τη μόνο με μπαταρία του ίδιου τύπου.

Για να αποφύγετε τυχόν τραυματισμό ή θάνατο, μην: (1) την πετάξετε ή τη βυθίσετε σε νερό, (2) την εκθέσετε σε θερμοκρασίες μεγαλύτερες των 100°C (212°F), ή (3) επιχειρήσετε να την επισκευάσετε ή να την αποσυναρμολογήσετε. Η απόρριψή της πρέπει να γίνεται σύμφωνα με τις τοπικές διατάξεις ή κανονισμούς και τις προδιαγραφές ασφάλειας της εταιρείας σας.



## ΚΙΝΔΥΝΟΣ

Κατά την εγκατάσταση ή ρύθμιση της επιλογής CDC ή Mini PCI, ακολουθήστε τις παρακάτω οδηγίες:

Για να αποφύγετε τυχόν ηλεκτροπληξία, αποσυνδέστε όλα τα καλώδια και το μετασχηματιστή εναλλασσόμενου ρεύματος όταν εγκαθιστάτε την επιλογή CDC ή Mini PCI ή ανοίγετε τα καλύμματα του συστήματος ή προσαρτημένων συσκευών. Το ηλεκτρικό ρεύμα στα καλώδια ρεύματος, τηλεφώνου και επικοινωνίας είναι επικίνδυνο.

### ΠΡΟΣΟΧΗ:

Όταν έχετε προσθέσει ή αναβαθμίσει μια κάρτα CDC ή Mini PCI ή μια κάρτα μνήμης, μη χρησιμοποιήσετε τον υπολογιστή πριν κλείσετε το κάλυμμα. Ποτέ μη χρησιμοποιείτε τον υπολογιστή όταν το κάλυμμα είναι ανοιχτό.

### ΠΡΟΣΟΧΗ:

Η λάμπα φθορισμού που περιέχεται στην οθόνη υγρών κρυστάλλων (LCD) περιέχει υδράργυρο. Μην την πετάτε σε απορρίμματα που καταλήγουν σε χωματερές ή χώρους υγειονομικής ταφής απορριμμάτων. Η απόρριψή της πρέπει να γίνεται σύμφωνα με τις τοπικές διατάξεις ή κανονισμούς.

Η οθόνη υγρών κρυστάλλων είναι κατασκευασμένη από γυαλί και υπάρχει κίνδυνος να σπάσει αν ο υπολογιστής χτυπηθεί ή πέσει κάτω. Αν η οθόνη υγρών κρυστάλλων σπάσει και το υγρό που περιέχεται σε αυτήν έρθει σε επαφή με τα μάτια ή τα χέρια σας, πρέπει αμέσως να τα πλύνετε με νερό για τουλάχιστον 15 λεπτά. Αν παρατηρήσετε οποιαδήποτε συμπτώματα μετά την πλύση, ζητήστε ιατρική φροντίδα.





## ΚΙΝΔΥΝΟΣ

Για να ελαττώσετε τον κίνδυνο πυρκαγιάς, ηλεκτροπληξίας ή τραυματισμού κατά τη χρήση τηλεφωνικού εξοπλισμού, τηρείτε πάντα τις βασικές προφυλάξεις, όπως:

- Ποτέ μην εγκαθιστάτε τηλεφωνικά καλώδια κατά τη διάρκεια καταιγίδας.
- Ποτέ μην εγκαθιστάτε υποδοχές τηλεφωνικών γραμμών σε υγρά σημεία, εκτός αν η υποδοχή είναι ειδικά σχεδιασμένη για υγρές συνθήκες.
- Ποτέ μην αγγίζετε μη μονωμένα τηλεφωνικά καλώδια ή ακροδέκτες, εκτός αν η τηλεφωνική γραμμή έχει αποσυνδεθεί από το δίκτυο.
- Η εγκατάσταση ή τροποποίηση τηλεφωνικών γραμμών απαιτεί προσοχή.
- Αποφεύγετε τη χρήση τηλεφώνων (εκτός αν είναι ασύρματου τύπου) κατά τη διάρκεια καταιγίδας. Ενδέχεται να υπάρχει μικρός κίνδυνος ηλεκτροπληξίας από κεραυνό.
- Σε περίπτωση διαρροής αερίου, μη χρησιμοποιήσετε τηλέφωνο στο χώρο της διαρροής για να την αναφέρετε.
- Χρησιμοποιείτε μόνο καλώδιο τηλεφώνου Αρ. 26 AWG ή μεγαλύτερο (παχύτερο).

## Δήλωση σχετικά με τις προδιαγραφές των συσκευών laser

Η οπτική μονάδα αποθήκευσης, π.χ. μονάδα CD-ROM, CD-RW, DVD-ROM, DVD-ROM ή SuperDisk, που μπορεί να είναι εγκατεστημένη στον υπολογιστή ThinkPad είναι προϊόν laser. Η παρακάτω ετικέτα σήμανσης προϊόντος laser Κατηγορίας 1 βρίσκεται στην επιφάνεια της μονάδας.

CLASS 1 LASER PRODUCT  
LASER KLASSE 1  
LUOKAN 1 LASERLAITE  
APPAREIL A LASER DE CLASSE 1  
KLASS 1 LASER APPARAT

Η μονάδα είναι πιστοποιημένη από τον κατασκευαστή ως προϊόν που καλύπτει τις απαιτήσεις του Κώδικα Ομοσπονδιακών Κανονισμών 21 του Υπουργείου Υγείας και Ανθρωπίνων Υπηρεσιών των ΗΠΑ (DHHS 21 CFR) και συγκεκριμένα του Υποκεφαλαίου J για προϊόντα laser Κατηγορίας 1.

Σε άλλες χώρες, η μονάδα είναι πιστοποιημένη ως προϊόν που καλύπτει τις απαιτήσεις των προτύπων IEC825 και EN60825 για προϊόντα laser Κατηγορίας 1.



## ΚΙΝΔΥΝΟΣ

Μην ανοίξετε την οπτική μονάδα αποθήκευσης. Δεν υπάρχουν στο εσωτερικό της μονάδας εξαρτήματα που μπορούν να επισκευαστούν από το χρήστη ή ρυθμίσεις που μπορούν να γίνουν από το χρήστη.

Η διαφορετική από την περιγραφόμενη χρήση κουμπιών και ρυθμιστών ή εκτέλεση διαδικασιών μπορεί να έχει ως αποτέλεσμα την έκθεση σε επικίνδυνη ακτινοβολία.

Τα προϊόντα laser Κατηγορίας 1 δεν θεωρούνται επικίνδυνα. Ο σχεδιασμός του συστήματος laser και της οπτικής μονάδας αποθήκευσης εξασφαλίζει τη μη έκθεση σε ακτινοβολία laser, πάνω από το επίπεδο της Κατηγορίας 1, σε συνθήκες συνήθους λειτουργίας, συντήρησης από το χρήστη ή παροχής υπηρεσιών.

Ορισμένες μονάδες περιέχουν ενσωματωμένη δίοδο laser Κατηγορίας 3A. Σημειώνονται τα ακόλουθα:



## ΚΙΝΔΥΝΟΣ

Εκπέμπει ορατή και αόρατη ακτινοβολία laser όταν το κάλυμμα είναι ανοικτό. Αποφεύγετε την απευθείας έκθεση των ματιών στην ακτινοβολία. Μην κοιτάτε απευθείας στην κατεύθυνση της δέσμης και μην την εξετάζετε με οπτικά εργαλεία.



## ΚΙΝΔΥΝΟΣ

Αποθηκεύστε τα υλικά συσκευασίας σε ασφαλή χώρο μακριά από παιδιά για να αποφύγετε τον κίνδυνο ασφυξίας από πλαστικές σακούλες.

Πολλά προϊόντα και προαιρετικά τμήματα PC περιέχουν καλώδια ή σύρματα, π.χ. καλώδια ρεύματος ή καλώδια σύνδεσης του προαιρετικού τμήματος με το PC. Αν το προϊόν αυτό έχει τέτοια καλώδια ή σύρματα, ισχύει η ακόλουθη προειδοποίηση: **ΠΡΟΕΙΔΟΠΟΙΗΣΗ:** Ο χειρισμός του καλωδίου αυτού του προϊόντος ή των καλωδίων των προαιρετικών τμημάτων που παλούνται με αυτό το προϊόν, θα σας εκθέσει σε μόλυβδο, χημική ουσία που η Πολιτεία της Καλιφόρνιας θεωρεί ότι προκαλεί καρκίνο και γενετήσια ελαττώματα ή άλλες αναπαραγωγικές βλάβες. **Πλένετε τα χέρια σας μετά το χειρισμό των καλωδίων.**

Φυλάξτε αυτές τις οδηγίες.

---

## Important notice for users

---

### Important regulatory notice for users

The ThinkPad G40 Series computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. You are requested to install and use your ThinkPad computer in strict accordance with the local RF regulations. Before you use the ThinkPad G40 Series computer, please find and read *ThinkPad G40 Series Regulatory Notice*, the notice that supplements this Service and Troubleshooting Guide. The notice is included in the package with this publication.

---

### Information about hard disk capacity

Instead of providing a recovery CD or a Windows® CD with your computer, Lenovo provides simpler methods of accomplishing the tasks typically associated with these CDs. The files and programs for these alternative methods are on your hard disk, which eliminates having to locate misplaced CDs and problems associated with using an incorrect CD version.

The complete backup of all the files and programs that Lenovo preinstalled on your computer resides in a hidden section, or partition, of the hard disk. Although hidden, the backups in the partition consume hard disk space. Therefore, when checking the capacity of your hard disk according to Windows, you might note that the total capacity of the disk appears to be smaller than anticipated. This discrepancy is explained by the contents of the hidden partition. (See “Recovering pre-installed software” on page 31.)

For more information about recovering your hard disk to the original preinstalled contents, refer to your on-system help source, Access IBM. Press the blue Access IBM button or click the Access IBM icon on your desktop, and then browse the Learn section for various topics that cover backing up and recovering.



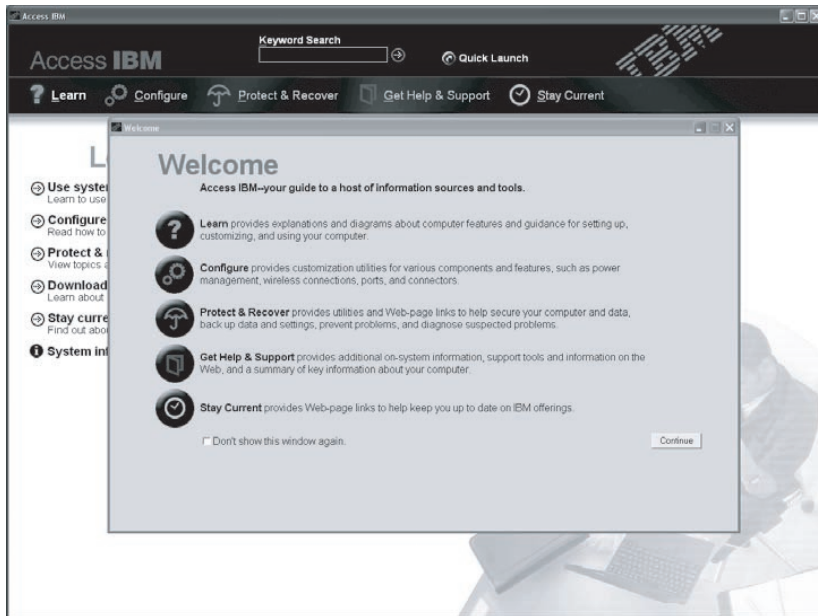
---

## Finding information with Access IBM



The blue Access IBM button can help you in many situations when your computer is working normally, and even when it is not. At your desktop, press the Access IBM button to open Access IBM. Access IBM is your on-board computer help center that brings you informative illustrations and easy-to-follow instructions for getting started and staying productive. You can also use the Access IBM button to interrupt the startup sequence of your computer and start Rescue and Recovery™. If Windows does not start correctly, press the Access IBM button during the startup sequence of your computer and start Rescue and Recovery. Use this program to run diagnostics, restore your backups (assuming you have made backups using the Rescue and Recovery program), restore the hard drive to the original factory state (ie, what was there when you received your computer), start a utility that enables you to change your startup sequence, and get essential system information, and start the BIOS Setup Utility where you can check and change BIOS settings.

Press the Access IBM button to open the application that brings all of Lenovo's resources to you. On the next page, you will see the Welcome page of Access IBM that explains what each part of Access IBM holds to help you.



Some of the topics in your help system contain brief video clips that show you how to perform certain tasks, such as replacing your battery, inserting a PC Card, or upgrading your memory. Use the controls shown to play, pause, and rewind the video clip.



---

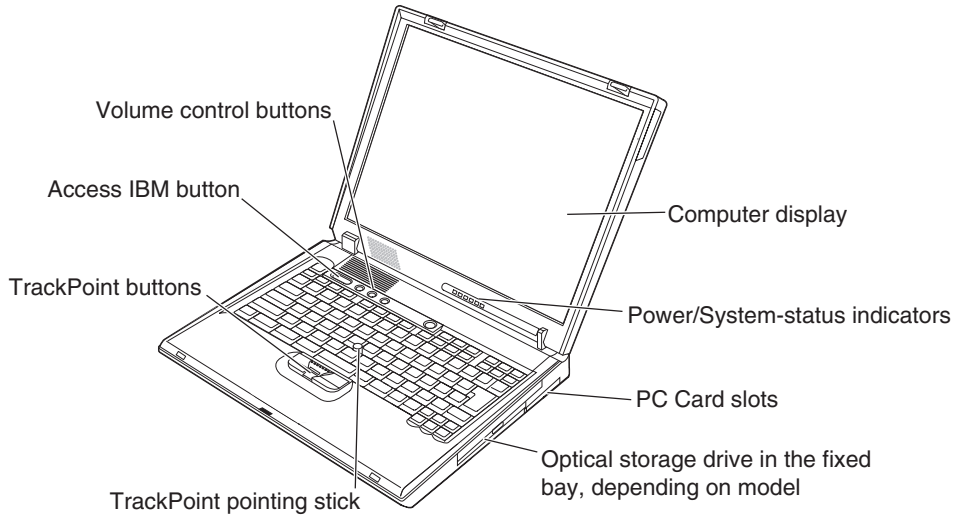
# Chapter 1. Overview of your new ThinkPad computer

Your ThinkPad at a glance . . . . .	2	Specifications . . . . .	5
Features. . . . .	3	Caring for your ThinkPad computer . . . . .	6

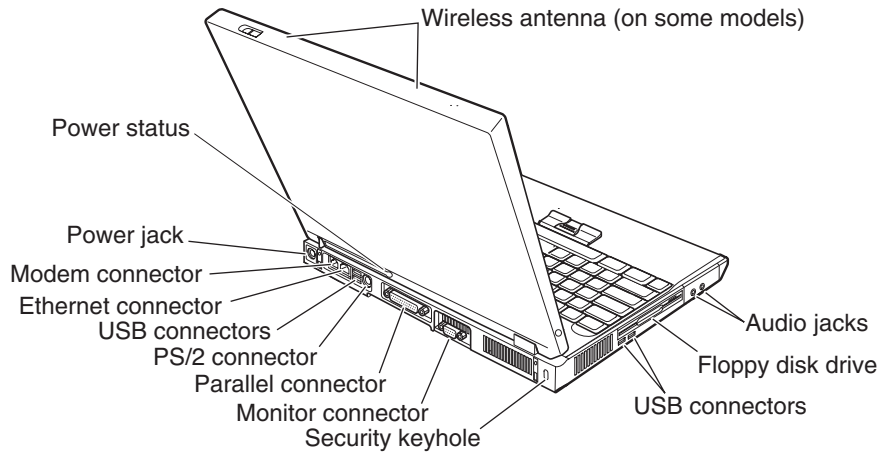
---

## Your ThinkPad at a glance

### Front view



### Rear view





---

## Features

### Processor

- Intel® Pentium® 4 Processor
- Intel® Celeron® Processor

### Memory

- Built-in: 128 MB, 256 MB, or 512 MB, depending on the model
- Maximum: 2048 MB

### Storage device

- 2.5-inch hard disk drive: 20 GB, 40 GB, 60 GB, or 80 GB, depending on the model

### Display

The color display uses TFT technology:

- Size: 14.1 inch or 15.0 inch
- Resolution:
  - LCD: 1024 x 768 or 1400 x 1050, depending on the model
  - External monitor: Up to 2048 x 1536
- Brightness control

### Keyboard

- 87-key, 88-key, or 92-key
- TrackPoint®
- Fn key function
- Access IBM button
- Volume control buttons
- Forward and Back keys

### Diskette drive

To get the best performance from your diskette drives, use high-quality diskettes (such as IBM diskettes) that meet or exceed the following standards:

- 1-MB, 3.5-inch, unformatted diskette (2DD):
  - ANSI (American National Standards Institute) X3.137
  - ISO (International Standards Organization) 8860
  - ECMA (European Computer Manufacturers Association) 100
- 2-MB, 3.5-inch, unformatted diskette (2 HD):
  - ANSI X3.171
  - ISO 9529
  - ECMA 125

### External interface

- Parallel connector (IEEE 1284A)
- PS/2 mouse/keyboard combination connector
- External-monitor connector
- PC Card slots (Type II: two slots; Type III: one slot)
- Headphone jack
- Microphone jack
- Four Universal Serial Bus (USB 2.0) connectors
- RJ11 telephone connector
- RJ45 Ethernet connector
- Integrated wireless LAN feature (on some models)

---

## Specifications

### Size

- Width: 329 mm (12.95 in.)
- Depth: 282.5mm (11.2 in.)
- Height: 37.1 mm – 50.9 mm (1.46 in. – 2.00 in.)

### Environment

- Maximum altitude without pressurization: 3048 m (10,000 ft)
- Temperature
  - At altitudes up to 2438 m (8000 ft)
    - Operating with no diskette: 5° to 35°C (41° to 95°F)
    - Operating with a diskette: 10° to 35°C (50° to 95°F)
    - Not operating: 5° to 43°C (41° to 110°F)
  - At altitudes above 3048 m (10,000 ft)
    - Maximum operating temperature, 31.3°C (88° F)

**Note:** When you charge the battery pack, its temperature must be at least 10°C (50°F).

- Relative humidity:
  - Operating with no diskette in the drive: 8% to 95%
  - Operating with a diskette in the drive: 8% to 80%

### Heat output

- 120 W (410 Btu/hr) maximum

### Power source (ac adapter)

- Sine-wave input at 50 to 60 Hz
- Input rating of the ac adapter: 100-240 V ac, 50 to 60 Hz

### Battery pack

- 12-cell Lithium-ion (Li-Ion) battery pack
  - Nominal voltage: 10.8 V dc
  - Capacity: 8.8 AH
- 6-cell Lithium-ion (Li-Ion) battery pack
  - Nominal voltage: 10.8 V dc
  - Capacity: 4.4 AH

## **Caring for your ThinkPad computer**

Though your computer is designed to function reliably in normal work environments, you need to use common sense in handling it. By following these important tips, you will get the most use and enjoyment out of your computer.

### **Important tips:**

#### **Be careful about where and how you work**

- Do not leave the base of your computer in contact with your lap or any part of your body for an extended period when the computer is functioning or when the battery is charging. Your computer dissipates some heat during normal operation. This heat is a function of the level of system activity and battery charge level. Extended contact with your body, even through clothing, could cause discomfort or, eventually, a skin burn.
- Place liquids away from your computer to avoid spills, and keep your computer away from water (to avoid the danger of electrical shock).
- Store packing materials safely out of the reach of children to prevent the risk of suffocation from plastic bags.
- Keep your computer away from magnets, activated cellular phones, electrical appliances, or speakers (within 13 cm/5 in).
- Avoid subjecting your computer to extreme temperatures (below 5°C/41°F or above 35°C/95°F).

#### **Be gentle with your computer**

- Avoid placing any objects (including paper) between the display and the keyboard or under the keyboard.
- Do not drop, bump, scratch, twist, hit, vibrate, push or place heavy objects on your computer, display, or external devices.
- Your computer display is designed to be opened and used at an angle slightly greater than 90 degrees. Do not open the display beyond 180 degrees, as this might damage the computer hinge.

#### **Carry your computer properly**

- Before moving your computer, be sure to remove any media, turn off attached devices, and disconnect cords and cables.
- Be sure your computer is in standby or hibernation mode, or turned off, before moving it. This will prevent damage to the hard disk drive and data loss.
- When picking up your open computer, hold it by the bottom. Do not pick up or hold your computer by the display.

- Use a quality carrying case that provides adequate cushion and protection. Do not pack your computer in a tightly packed suitcase or bag.

### **Handle storage media and drives properly**

- Avoid inserting diskettes at an angle and attaching multiple or loose diskette labels, as these can lodge in the drive.
- If your computer comes with an optical drive such as CD, DVD, or CD-RW/DVD drive, do not touch the surface of a disc or the lens on the tray.
- Wait until you hear the CD or DVD click into the center pivot of an optical drive such as CD, DVD, or CD-RW/DVD drive before closing the tray.
- When installing your hard disk, diskette, CD, DVD, or CD-RW/DVD drive, follow the instructions shipped with your hardware, and apply pressure only where needed on the device. See Access IBM, your on-board help system, for information on replacing your hard disk drive (open Access IBM by pressing the Access IBM button).

### **Take care in setting passwords**

- Remember your passwords. If you forget a supervisor or hard disk password, Lenovo authorized service provider will not reset it, and you might have to replace your system board or hard disk drive.

### **Other important tips**

- Your computer modem might use only an analog telephone network, or public-switched telephone network (PSTN). Do not connect the modem to a PBX (private branch exchange) or any other digital telephone extension line because this could damage your modem. Analog phone lines are often used in homes, while digital phone lines are often used in hotels or office buildings. If you are not sure which kind of phone line you are using, contact your telephone company.
- Your computer might have both an Ethernet connector and a modem connector. If so, be sure to connect your communication cable to the correct one, so your connector is not damaged. See Access IBM, your on-board help system, for information on the location of these connectors (press the Access IBM button to open Access IBM).
- Register your ThinkPad products with Lenovo (refer to the Web page: [www.lenovo.com/register](http://www.lenovo.com/register)). This can help authorities return your computer to you if it is lost or stolen. Registering your computer also enables Lenovo to notify you about possible technical information and upgrades.
- Only an authorized ThinkPad repair technician should disassemble and repair your computer.
- Do not modify or tape the latches to keep the display open or closed.

- Take care not to turn your computer over while the ac adapter is plugged in. This could break the adapter plug.
- Turn off your computer if you are replacing a device in a device bay, or else verify that the device is warm-or hot-swappable.
- If you exchange drives in your computer, reinstall the plastic bezel faces (if supplied).
- Store your external and removable hard disk, diskette, CD, DVD, and CD-RW/DVD drives in the appropriate containers or packaging when they are not being used.
- Before you install any of the following devices, touch a metal table or a grounded metal object. This action reduces any static electricity from your body. The static electricity could damage the device.
  - PC Card
  - Smart Card
  - Memory Card, such as SD Card, Memory Stick, and MultiMediaCard
  - Memory module
  - Mini-PCI Card
  - Communication Daughter Card

### **Cleaning the cover of your computer**

Occasionally clean your computer as follows:

1. Prepare a mixture of a gentle kitchen-use detergent (one that does not contain abrasive powder or strong chemicals such as acid or alkaline). Use 5 parts water to 1 part detergent.
2. Absorb the diluted detergent into a sponge.
3. Squeeze excess liquid from the sponge.
4. Wipe the cover with the sponge, using a circular motion and taking care not to let any excess liquid drip.
5. Wipe the surface to remove the detergent.
6. Rinse the sponge with clean running water.
7. Wipe the cover with the clean sponge.
8. Wipe the surface again with a dry, soft lint-free cloth.
9. Wait for the surface to dry completely and remove any cloth fibers from the computer surface.

### **Cleaning your computer keyboard**

1. Absorb some isopropyl rubbing alcohol on a soft, dust-free cloth.

2. Wipe each keytop surface with the cloth. Wipe the keys one by one; if you wipe several keys at a time, the cloth may hook onto an adjacent key and possibly damage it. Make sure that no liquid drips onto or between the keys.
3. Allow to dry.
4. To remove any crumbs and dust from beneath the keys, you can use a camera blower with a brush or cool air from a hair drier.

**Note:** Avoid spraying cleaner directly on the display or the keyboard.

### **Cleaning your computer display**

1. Gently wipe the display with a dry, soft lint-free cloth. If you see a scratchlike mark on your display, it might be a stain transferred from the keyboard or the TrackPoint pointing stick when the cover was pressed from the outside.
2. Wipe or dust the stain gently with a soft, dry cloth.
3. If the stain remains, moisten a soft, lint-free cloth with water or a 50-50 mixture of isopropyl alcohol and water that does not contain impurities.
4. Wring out as much of the liquid as you can.
5. Wipe the display again; do not let any liquid drip into the computer.
6. Be sure to dry the display before closing it.





---

## Chapter 2. Solving computer problems

Diagnosing problems . . . . .	12	Computer screen problems . . . . .	23
Troubleshooting . . . . .	12	Battery problems . . . . .	25
Error messages . . . . .	12	Hard disk drive problems . . . . .	25
Errors without messages . . . . .	17	A startup problem . . . . .	26
A password problem . . . . .	18	Other problems . . . . .	28
A power switch problem . . . . .	19	Starting BIOS Setup Utility . . . . .	30
Keyboard problems . . . . .	19	Recovering pre-installed software . . . . .	31
TrackPoint problems . . . . .	20	Upgrading the hard disk drive . . . . .	32
Standby or hibernation problems . . . . .	21	Replacing the battery . . . . .	34

---

## Diagnosing problems

If you have a problem with your computer, you can test it by using PC-Doctor<sup>®</sup> for Windows. To run PC-Doctor for Windows, do as follows:

1. Click **Start**.
2. Move the pointer to **All Programs** (in Windows other than Windows XP, **Programs**) and then to **PC-Doctor for Windows**.
3. Click **PC-Doctor**.
4. Choose one of the tests, from either **Device Categories** or **Test Scripts**.

### Attention

Running any tests may take up to several minutes or longer. Make sure you have time to run the entire test; do not interrupt the test while it is running.

The **System Test** of the **Test Scripts** runs some tests of critical hardware components, but it does not run all of the diagnostic tests in PC-Doctor for Windows. If PC-Doctor for Windows reports that all of the tests in the **System Test** have been run and that it has found no problems, consider running more of the tests in PC-Doctor for Windows.

If you are preparing to contact the Support Center, be sure to print the test log so that you can rapidly provide information to the help technician.

---

## Troubleshooting

If you do not find your problem here, refer to Access IBM, your on-board help system. Open Access IBM by pressing the Access IBM button. The following section only describes problems that might prevent you from accessing this help system.

### Error messages

#### Notes:

1. In the charts, x can be any character.
2. The version of PC-Doctor referred to here is PC-Doctor for Windows.

Message	Solution
0175: Bad CRC1, stop POST task	The EEPROM checksum is not correct (block #6). Have the computer serviced.
0177: Bad SVP data, stop POST task.	The EEPROM checksum of the supervisor password is not correct. Have the computer serviced.

Message	Solution
0182: Bad CRC2. Enter BIOS Setup and load Setup defaults.	The EEPROM checksum CRC2 is not correct. Enter BIOS Setup Utility and load default setting.
0185: Bad startup sequence settings. Enter BIOS Setup and load Setup defaults.	The EEPROM checksum of the startup sequence is not correct. Enter BIOS Setup Utility and load default setting.
0187: EAIA data access error	The access to EEPROM has failed. Have the computer serviced.
0188: Invalid RFID Serialization Information Area.	The EEPROM checksum is not correct (block # 0 and 1). The system board should be replaced, and the box serial number needs to be reinstalled. Have the computer serviced.
0189: Invalid RFID configuration information area	The EEPROM checksum is not correct (block # 4 and 5). The system board should be replaced, and the UUID needs to be reinstalled. Have the computer serviced.
0190: Critical low-battery error	The computer turned off because the battery is low. Connect the ac adapter to the computer and charge the battery, or replace the battery with a fully charged one.
0191: System Security - Invalid remote change requested.	The system configuration change has failed. Confirm the operation and try again. To clear the error, enter the BIOS Setup Utility.
0199: System Security - Security password retry count exceeded.	This message is displayed if you enter a wrong supervisor password more than three times. Confirm the supervisor password and try again. To clear the error, enter the BIOS Setup Utility.
01C9: More than one Ethernet devices are found. Remove one of them. Press <Esc> to continue.	Your ThinkPad computer has a built-in Ethernet feature, and you cannot add another such feature by installing an Ethernet device. If this error message is displayed, remove the Ethernet device that you installed. Otherwise press Esc to ignore the warning message. If this does not solve the problem, have the computer serviced.
0200: Hard disk error	The hard disk is not working. Make sure that the hard disk drive is attached firmly. Run the BIOS Setup Utility; then make sure the hard disk drive is not disabled in the Startup menu.

Message	Solution
021x: Keyboard error	<p>Make sure that there are no objects placed on the keyboard, or if you have one, the external keyboard. Turn off the computer, and turn off all attached devices. Turn on the computer first; then turn on the attached devices.</p> <p>If you still see the same error code, do the following:</p> <p>If an external keyboard is connected, do the following:</p> <ul style="list-style-type: none"> <li>• Turn off the computer and disconnect the external keyboard; then turn on the computer. Make sure that the built-in keyboard operates correctly. If it does, have the external keyboard serviced.</li> <li>• Make sure that the external keyboard is connected to the correct connector.</li> </ul> <p>Test the computer by using PC-Doctor.</p> <ul style="list-style-type: none"> <li>• If the computer stops during the test, have the computer serviced.</li> </ul>
0230: Shadow RAM error	The shadow RAM failed. Test your computer's memory with PC-Doctor. If you added a memory module just before turning the computer on, reinstall it. Then test the memory with PC-Doctor.
0231: System RAM error	The system RAM failed. Test your computer's memory with PC-Doctor. If you added a memory module just before turning the computer on, reinstall it. Then test the memory with PC-Doctor.
0232: Extended RAM error	The extended RAM failed. Test your computer's memory with PC-Doctor. If you have increased memory just before turning the computer on, reinstall it. Then test the memory with PC-Doctor.
0250: System battery error	The backup battery, which is used to preserve the configuration information, such as the date and time, while the computer is turned off, is depleted. Recharge the battery for one hour by connecting the ac adapter to the computer and run BIOS Setup Utility to verify the configuration. If you still have a problem, replace the battery and run the BIOS Setup Utility to verify the configuration. If you still have a problem, have the computer serviced.
0251: System CMOS checksum bad	The system CMOS might have been corrupted by an application program. The computer uses the default settings. Run the BIOS Setup Utility to reconfigure the settings. If you still see the same error code, have the computer serviced.
0260: System timer error	Have the computer serviced.
0270: Real time clock error	Have the computer serviced.
0271: Date and time error	Neither the date nor the time is set in the computer. Set the date and time, using the BIOS Setup Utility.

Message	Solution
0280: Previous boot incomplete	Your computer was previously unable to complete the boot process.  Turn the computer off; then turn it on to start the BIOS Setup Utility. Verify the configuration and then restart the computer either by choosing the <b>Exit Saving Changes</b> option under the <b>Restart</b> item or by pressing F10. If you still see the same error code, have the computer serviced.
02D0: System cache error	The cache is disabled. Have the computer serviced.
02F4: EISA CMOS not writable	Have the computer serviced.
02F5: DMA test failed	Have the computer serviced.
02F6: Software NMI failed	Have the computer serviced.
02F7: Fail-safe timer NMI failed	Have the computer serviced.
1802: Unauthorized network card is plugged in - Power off and remove the miniPCI network card.	The Mini-PCI network card is not supported on this computer. Remove it.
1803: Unauthorized daughter card is plugged in - Power off and remove the daughter card.	The daughter card is not supported on this computer. Remove it.
1804: Unauthorized battery is detected- Replace it with a battery of the correct model.	You cannot use the attached battery with this computer. Replace it with a battery of the correct model.

Message	Solution
1810: Hard disk partition layout error	<p>A problem in recognizing the layout of the partition on the hard disk has halted the computer startup. Either the Predesktop Area has been deleted, or the hard disk contains corrupt data. To try to restart your computer, complete one of the following:</p> <ul style="list-style-type: none"> <li>• If the Predesktop Area has been deleted               <ol style="list-style-type: none"> <li>1. Press F1 to open BIOS Setup Utility.</li> <li>2. Select <b>Security</b> → <b>Predesktop Area</b> → <b>Access IBM Predesktop Area</b>.</li> <li>3. Set this item to <b>Disabled</b>.</li> <li>4. Save and exit.</li> </ol> </li> <li>• If the above fails               <ol style="list-style-type: none"> <li>1. Press Enter.</li> <li>2. Double-click <b>RECOVER TO FACTORY CONTENTS</b> and follow on-screen instructions.                   <p><b>Note:</b> This will permanently erase the entire contents of the hard disk, and then install software preinstalled.</p> </li> </ol> </li> </ul> <p>Press F1 to open BIOS Setup Utility, or Enter to start the Predesktop Area.</p> <p>If the computer still does not start, call the Support Center. Telephone numbers are listed in “Worldwide telephone list” on page 65.</p>
The power-on password prompt	<p>A power-on password or a supervisor password is set. Type the password and press Enter to use the computer. If the power-on password is not accepted, a supervisor password might have been set. Type the supervisor password and press Enter. If you still see the same error message, have the computer serviced.</p>
The hard disk password prompt	<p>A hard disk password is set. Type the password and press Enter to use the computer.</p> <p>If you still see the same error message, have the computer serviced.</p>
Hibernation error	<p>The system configuration changed between the time your computer entered hibernation mode and the time it left this mode, and your computer cannot resume normal operation.</p> <ul style="list-style-type: none"> <li>• Restore the system configuration to what it was before your computer entered hibernation mode.</li> <li>• If the memory size has been changed, re-create the hibernation file.</li> </ul>
Operating system not found.	<p>Verify the following:</p> <ul style="list-style-type: none"> <li>• The hard disk drive is correctly installed.</li> <li>• A startable diskette is in the diskette drive</li> </ul> <p>If you still see the same error message, check the boot sequence, using the BIOS Setup Utility.</p>
Fan error	<p>The cooling fan has failed. Have the computer serviced.</p>

Message	Solution
EMM386 Not Installed — Unable to Set Page Frame Base Address.	Edit C:\CONFIG.SYS and change a line from device=C:\WINDOWS\EMM386.EXE RAM  to device=C:\WINDOWS\EMM386.EXE NOEMS  and save this file.
CardBus Configuration Error —Device Disabled	Go to the BIOS Setup Utility. Press F9 and then Enter to load the default setting.  Press F10 and then Enter to restart the system.
Thermal sensing error	The thermal sensor is not functioning correctly. Have the computer serviced.

## Errors without messages

### Problem:

When I turn on the machine, nothing appears on the screen and the machine does not beep while starting up.

**Note:** If you are not sure whether you heard any beeps, turn off the computer; then turn it on again, and listen again. If you are using an external monitor, refer to “Computer screen problems” on page 23.

### Solution:

If a power-on password is set, press any key to display the power-on password prompt, and then type the correct password and press Enter.

If the power-on password prompt does not appear, the brightness level might be set to minimum brightness. Adjust the brightness level by pressing Fn+Home.

If the screen still remains blank, make sure that:

- The battery is installed correctly.
- The ac adapter is connected to the computer and the power cord is plugged into a working electrical outlet.
- The computer power is on. (Turn on the power switch again for confirmation.)

If these items are properly set, and the screen remains blank, have the computer serviced.

### Problem:

When I turn on the machine, nothing appears on the screen, but I hear two or more beeps.

**Solution:**

Make sure that the memory card is installed correctly. If it is, but the screen is still blank, and you hear five beeps, have the computer serviced.

If you hear 4 cycles of 4 beeps each, the Security Chip has a problem. Have the computer serviced.

**Problem:**

When I turn on the machine, only a white pointer appears on a blank screen.

**Solution:**

Reinstall your operating system, and turn on the computer. If you still see only the pointer on the screen, have the computer serviced.

**Problem:**

My screen goes blank while the computer is on.

**Solution**

Your screen saver or power management may be enabled. Touch the TrackPoint or press a key to exit the screen saver, or press the power switch to resume from standby or hibernation mode.

**Problem:**

The DOS full-screen looks smaller.

**Solution:**

If you use a DOS application that supports only 640×480 resolution (VGA mode), the screen image might look slightly distorted or appear smaller than the display size. This is to maintain compatibility with other DOS applications. To expand the screen image to the same size as the actual screen, start the ThinkPad Configuration Program and click **LCD**; then select the **Screen expansion** function. (The image might still look slightly distorted.)

## A password problem

**Problem:**

I forgot my password.

**Solution:**

If you forgot your power-on password, you must take your computer to a Lenovo authorized servicer or a marketing representative to have the password canceled.

If you forgot your hard disk password, a Lenovo authorized servicer can not reset your password or recover data from the hard disk. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the hard disk drive replaced. Proof of purchase is required, and a fee will be charged for parts and service.



If you forgot your supervisor password, a Lenovo authorized servicer can not reset your password. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the system board replaced. Proof of purchase is required, and a fee will be charged for parts and service.

### **A power switch problem**

**Problem:**

The system does not respond, and you cannot turn off the computer.

**Solution:**

Turn off the computer by pressing and holding the power switch for 4 seconds or more. If the computer is still not reset, remove the ac adapter and the battery.

### **Keyboard problems**

**Problem:**

Some or all of the keys on the keyboard do not work.

**Solution:**

If the problem occurred immediately after the computer returned from standby mode, enter the power-on password if one has been set.

If an external PS/2<sup>®</sup> keyboard is connected, the numeric keypad on your computer does not work. Use the numeric keypad on the external keyboard.

If an external numeric keypad or a mouse is connected:

1. Turn off the computer.
2. Remove the external numeric keypad or the mouse.
3. Turn on the computer and try using the keyboard again.

If the keyboard problem is resolved, carefully reconnect the external numeric keypad, external keyboard, or mouse, making sure that you have seated the connectors properly.

If the external keypad, external keyboard, or mouse are not attached, and any keys on the keyboard still do not work, have the computer serviced.

**Problem:**

A number appears when you type a letter.

**Solution**

The numeric lock function is on. To disable it, press and hold Shift; then press NumLk.

**Problem:**

Some or all of the keys on the external numeric keypad do not work.

**Solution:**

Make sure that the external numeric keypad is correctly connected to the computer.

## **TrackPoint problems**

**Problem:**

The pointer drifts when the computer is turned on or after it resumes normal operation.

**Solution:**

The pointer might drift when you are not using the TrackPoint during normal operation. This is a normal characteristic of the TrackPoint and is not a defect. The pointer drifts for several seconds under the following conditions:

- When the computer is turned on.
- When the computer resumes normal operation.
- When the TrackPoint is pressed for a long time.
- When the temperature changes.

**Problem:**

The mouse or the pointing device does not work.

**Solution:**

Make sure that the TrackPoint is set to Automatic in the ThinkPad Configuration Program. Then detach the mouse or the pointing device, and try using the TrackPoint. If the TrackPoint works, the error might be due to the mouse or the pointing device.

Make sure that the cable for the mouse or the pointing device is securely connected.

If your mouse is incompatible with the PS/2 mouse, disable the TrackPoint, using the ThinkPad Configuration Program.

**Note:** For more information, see the manual supplied with the mouse.

**Problem**

The mouse buttons do not work.

**Solution**

Change the mouse driver to **Standard PS/2<sup>®</sup> Port Mouse**, and then reinstall **PS/2 TrackPoint**. Drivers are provided in the C:\IBMTOOLS\DRIVERS directory on your hard disk drive. If your hard disk drive does not contain device drivers, refer to the ThinkPad Web site. To access this Web site, press the Access IBM button. The Access IBM panel opens. On it, click **Get Help & Support**, and then click **Download & update**. Select **Device drivers & software downloads**.

**Problem**

The scrolling or magnifying glass function does not work.

**Solution**

Check the mouse driver in the Device Manager window, and make sure that the PS/2 TrackPoint driver is installed.

**Standby or hibernation problems**

**Problem:**

The computer enters standby mode unexpectedly.

**Solution:**

If the processor overheats, the computer automatically enters standby mode to allow the computer to cool and to protect the processor and other internal components. Also, check the settings for standby mode, using Battery MaxiMiser.

**Problem:**

The computer enters standby mode immediately after Power-on self-test (POST) (the standby indicator light turns on).

**Solution:**

Make sure that:

- The battery is charged.
- The operating temperature is within the acceptable range. Refer to "Specifications" on page 5.

If these items are correct, have the computer serviced.

**Problem:**

The critical low-battery error message is displayed, and the computer immediately turns off.

**Solution:**

The battery power is getting low. Connect the ac adapter to the computer, or replace the battery with a fully charged one.

**Problem:**

When you take action to return from standby mode, the computer display remains blank.

**Solution:**

Check whether an external monitor was disconnected while the computer was in standby mode. Do not disconnect the external monitor while the computer is in standby mode or hibernation mode. If no external monitor is attached when the computer resumes, the computer display remains blank and output is not displayed. This restriction does not depend on the resolution value. Press Fn+F7 to bring up the computer display.

**Note:** If you use the Fn+F7 key combination to apply a presentation scheme, press Fn+F7 at least three times in three seconds, and the image is displayed on the computer screen.

**Problem:**

The computer does not return from standby mode, or the standby indicator stays on and the computer does not work.

**Solution:**

If the system does not return from standby mode, it may have entered standby or hibernation mode automatically because the battery is depleted. Check the standby indicator.

- If the standby indicator is on, your computer is in standby mode. Connect the ac adapter to the computer; then press Fn.
- If the standby indicator is off, your computer is in hibernation mode or power-off state. Connect the ac adapter to the computer; then press power button to resume operation.

If the system still does not return from standby mode, your system may stop responding and you cannot turn off the computer. In this case, you need to reset the computer. If you have not saved your data, it may be lost. To reset the computer, press and hold the power button for 4 seconds or more. If the system is still not reset, remove the ac adapter and the battery.

**Problem:**

Your computer does not enter standby or hibernation mode.

**Solution:**

Check whether any option has been selected that would disable your computer from entering standby or hibernation mode.

**Problem:**

The Fn+F12 key combination does not cause the computer to enter hibernation mode.

**Solution:**

The computer cannot enter hibernation mode. To enable hibernation mode, do as follows:

1. Start the ThinkPad Configuration Program.
2. Click **Power Management**.
3. Click the **Hibernate** tab.
4. Select the hibernate support checkbox.
5. Click OK.

**Note:** You can enter hibernation mode by pressing Fn+F12 only if the PM driver for Windows XP or Windows 2000 has been installed.

**Problem:**

Under Windows XP, the Fn+F3 key combination does not make the computer screen go blank.

**Solution:**

Windows XP enables multiple users to log on to the system at the same time. If you are the first user to have logged on to your computer, you can use the Fn+F3 key combination. Otherwise the combination will not work on your computer.

## Computer screen problems

**Problem:** The screen is blank.

**Solution:**

- If the standby status indicator is on (is green), press Fn to resume from the standby mode.
- If you are using the ac adapter, or using the battery, and the battery status indicator is on (is green), press Fn+Home to make the screen brighter.
- Press Fn+F7 to bring up the image.

**Note:** If you use the Fn+F7 key combination to apply a presentation scheme, press Fn+F7 at least three times in three seconds, and the image is displayed on the computer screen.

- If the problem persists, do the “Solution” in the problem below.

**Problem:** The screen is unreadable or distorted.

**Solution:** Make sure that:

- The display device driver is installed correctly.
- The display resolution and color depth are correctly set.
- The monitor type is correct.

To check these settings, do as follows:

**For Windows XP:**

1. Click **Start**.
2. Click **Control Panel**.
3. Click **Appearance and Themes** in the Pick a category section.
4. Click **Display** in the Pick a Control Panel icon section.
5. Click the **Settings** tab.
6. Check if the Screen resolution and Color quality are correctly set.
7. Click **Advanced**.
8. Click the **Adapter** tab.

9. Make sure “Intel® 82852/82855 GM/GME Chip” or “NVIDIA GeForce FX Go5200” is shown in the Adapter information window.
10. Click the **Monitor** tab.
11. Make sure the monitor type is correct.

**For Windows 2000:**

1. Double-click **Display** in the Control Panel. The Display Properties window opens.
2. Click the **Settings** tab.
3. Check if the Colors and Screen area are correctly set.
4. Click **Advanced...**
5. Click the **Adapter** tab.
6. Make sure “Intel® 82852/82855 GM/GME Chip” or “NVIDIA GeForce FX Go5200” is shown in the Adapter information window.
7. Click the **Monitor** tab.
8. Make sure the information is correct.

**Problem:** The screen stays on even after you turn off your computer.

**Solution:** Press and hold the power switch for 4 seconds or more to turn off your computer; then turn it on again.

**Problem:** Missing, discolored, or bright dots appear on the screen every time you turn on your computer.

**Solution:** This is an intrinsic characteristic of the TFT technology. Your computer’s display contains multiple thin-film transistors (TFTs). A small number of missing, discolored, or bright dots on the screen might exist all the time.

**Problem:** A message, “Unable to create overlay window,” appears when you try to start DVD playback.

*or*

You get poor or no playback while running video playback, DVD playback, or game applications.

**Solution:** Do either of the following:

- If you are using 32-bit color mode, change the color depth to 16-bit mode.
- If you are using a desktop size of 1280×1024 or larger, reduce the desktop size and the color depth.
- Attach the ac adapter.
- Close programs not being used.

## Battery problems

**Problem:** The battery cannot be fully charged by the power-off method in the standard charge time for your computer.

**Solution:** The battery might be over-discharged. Do the following:

1. Turn off the computer.
2. Make sure that the over-discharged battery is in the computer.
3. Connect the ac adapter to the computer and let it charge.

If the battery cannot be fully charged in 24 hours, use a new battery.

If the optional Quick Charger is available, use it to charge the over-discharged battery.

**Problem:** Your computer shuts down before the battery status indicator shows empty, *-or-* Your computer operates after the battery status indicator shows empty.

**Solution:** Discharge and recharge the battery.

**Problem:** The operating time for a fully charged battery is short.

**Solution:** Discharge and recharge the battery. If your battery's operating time is still short, use a new battery.

**Problem:** The computer does not operate with a fully charged battery.

**Solution:** The surge protector in the battery might be active. Turn off the computer for one minute to reset the protector; then turn on the computer again.

**Problem:** The battery does not charge.

**Solution:** You cannot charge the battery when it is too hot. If the battery feels hot, remove it from the computer and allow it to cool to room temperature. After it cools, reinstall it and recharge the battery. If it still cannot be charged, have it serviced.

## Hard disk drive problems

**Problem:** The hard disk drive makes a rattling noise intermittently.

**Solution:** The rattling noise might be heard when:

- The hard disk drive starts accessing the data or when it stops.

- You are carrying the hard disk drive.
- You are carrying your computer.

This is a normal characteristic of a hard disk drive and is not a defect.

**Problem:** The hard disk drive does not work.

**Solution:** In the startup menu in BIOS Setup Utility, make sure that the hard disk drive is included in the “Boot priority order” list. If it is included in the “Excluded from boot order” list, it is disabled. Select the entry for it in the list and press the x key. This moves the entry to the “Boot priority order” list.

### A startup problem

**Problem:**

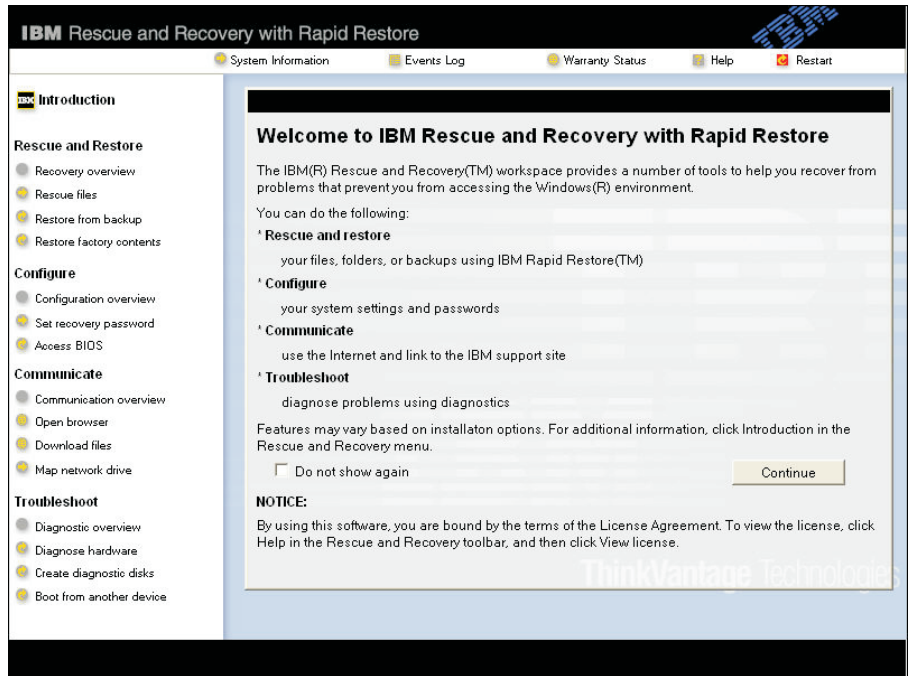
The Microsoft® Windows operating system will not start.

**Solution:**

Use the Rescue and Recovery workspace to help solve or identify your problem. Starting the Rescue and Recovery workspace is easy. To open Rescue and Recovery, do the following:

1. Turn off your PC, then turn it on again.
2. Watch the screen carefully while your PC starts. When the “**To interrupt normal startup, press the blue Access IBM button**” message is displayed at the lower left of the screen, press the blue Access IBM button. The Rescue and Recovery workspace opens. A window such as this will appear:





**Note:** The window may differ on some models.

3. After the Rescue and Recovery workspace opens, you can do the following:
  - **Rescue and Restore** your files, folders, or backups.
  - **Configure** your system settings and passwords.
  - **Communicate** by using the internet and link to the ThinkPad support site.
  - **Troubleshoot** and diagnose problems using diagnostics.

In the top panel of the Rescue and Recovery workspace, you can click the following to open other pages or exit the utility:

- **Events Log** enables you to view a log that contains information about events, or tasks, associated with Rescue and Recovery operations.
- **System Information** enables you to see key hardware and software information about your computer. This information might be valuable when trying to diagnose problems.
- **Warranty Status** enables you to see when your warranty expires, the terms of service for your computer, or list of replacement parts.
- **Help** provides information about the various functions available in the Rescue and Recovery workspace.

- **Restart** closes the Rescue and Recovery workspace and resumes the startup sequence that was interrupted.

### Other problems

**Problem:** The computer locks or does not accept any input.

**Solution:** Your computer might lock when it enters standby mode during a communication operation. Disable the standby timer when you are working on the network.

To turn off the computer, press and hold the power switch for 4 seconds or more.

**Problem:** The computer does not start from a device you want, such as a diskette drive.

**Solution:** Refer to the Startup menu of the BIOS Setup Utility. Make sure that the startup sequence in the BIOS Setup Utility is set so that the computer starts from the device you want.

Also make sure that the device from which the computer starts is enabled. In the startup menu in BIOS Setup Utility, make sure that the device is included in the "Boot priority order" list. If it is included in the "Excluded from boot order" list, it is disabled. Select the entry for it in the list and press the x key. This moves the entry to the "Boot priority order" list.

**Problem:** The computer does not respond.

**Solution:** IRQs for the PCI are all set as 11. The computer does not respond because it cannot share the IRQ with other devices. Refer to the ThinkPad Configuration Program.

**Problem:** You may receive an "Unsafe Removal of Device" message that mentions the USB 1.x device when you resume from suspend or hibernation in Windows 2000.

**Solution:** You can safely close this message window. It is displayed because of a USB 2.0 driver problem in Windows 2000. You can get detailed information in the More Information section of the Microsoft Knowledge Base 328580 and 323754. Visit the Microsoft Knowledge Base homepage at <http://support.microsoft.com/>, type the number of the knowledge base article you need in the search field, and click the Search button.

**Problem:** The computer cannot play a CD, or the sound quality of a CD is not good.

**Solution:** Be sure that the disk meets the standard for your country. Usually, a disk that meets the local standards is marked with a CD logo (as shown below) on the label. If you use a disk that does not meet these standards, we cannot guarantee that it will play, or that, if it does play, the sound quality will be good.



**Problem:** The system shows slow performance.

**Solution:** This problem may occur when the ac adapter is not attached. To prolong battery life with the higher frequency of Intel's Pentium 4/Celeron processors, the ThinkPad G40 implements the Dynamic CPU Throttling feature, which reduces CPU frequency dynamically: 1) when the system operates in battery mode; 2) when the system increases power consumption; 3) when system temperature increases.

To avoid or reduce this problem, do one or all of the following:

1. Attach the ac adapter.
2. Close applications not being used.
3. Try to lower system temperature by increasing the fan speed with the Battery MaxiMiser Wizard with Fan Control.

**Problem:** Playback of DVD is not smooth.

**Solution:** This problem may occur when the ac adapter is not attached. To prolong battery life with the higher frequency of Intel's Pentium 4/Celeron processors, the ThinkPad G40 implements the Dynamic CPU Throttling feature, which reduces CPU frequency dynamically: 1) when the system operates in battery mode; 2) when the system increases power consumption; 3) when system temperature increases.

To avoid or reduce this problem, do one or all of the following:

1. Attach the ac adapter.
2. Close applications not being used.
3. Try to lower system temperature by increasing the fan speed with the Battery MaxiMiser Wizard with Fan Control.

---

## Starting BIOS Setup Utility

Your computer provides a program, called BIOS Setup Utility, that enables you to select various setup parameters.

- **Config:** Set the configuration of your computer.
- **Date/Time:** Set the date and time.
- **Security:** Set security features.
- **Startup:** Set the startup device.
- **Restart:** Restart the system.

**Note:** You can set many of these parameters more easily by using the ThinkPad Configuration Program.

To start BIOS Setup Utility, do as follows:

1. To protect yourself against accidental loss of data, back up your data and computer registry. For details see “Data backup-and-restore tools” in Access IBM, your on-board help.
2. Remove any diskette from the diskette drive, and then turn off the computer.
3. Turn on the computer; then, while the message, “To interrupt normal startup, press the blue Access IBM button” is displayed at the lower left of the screen, press the Access IBM button. The Rescue and Recovery workspace opens.
4. Click **Access BIOS**. The System Restart Required window is displayed.
5. Click **Yes**. The computer restarts, and the BIOS Setup Utility menu appears.

If you have set a supervisor password, the BIOS Setup Utility menu appears after you enter the password. You can start the utility by pressing Enter instead of entering the supervisor password; however, you cannot change the parameters that are protected by the supervisor password. For more information, refer to the on-board help.

6. Using the cursor keys, move to an item you want to change. When the item you want is highlighted, press Enter. A submenu is displayed.
7. Change the items you wish to change. To change the value of an item, use the F5 or F6 key. If the item has a submenu, you can display it by pressing Enter.
8. Press F3 or Esc to exit from the submenu. If you are in a nested submenu, press Esc repeatedly until you reach the BIOS Setup Utility menu.

**Note:** If you need to restore the settings to their original state as of the time of purchase, press F9 key to load the default settings. You can also select an option in the Restart submenu to load the default settings or discard the changes.

9. Select Restart; then press Enter. Move the cursor to the option you want for restarting your computer; then press Enter. Your computer restarts.

---

## Recovering pre-installed software

Your computer hard disk has a hidden, protected area for backups. Contained within this area is a complete backup of the hard disk as it was shipped from the factory and a program called Rescue and Recovery.

If you installed the Rapid Restore Ultra program, Rescue and Recovery also contains additional Rapid Restore Ultra backups that reflect the contents of the hard disk, as it existed at various points in time.

You can use the Rescue and Recovery workspace to restore the contents of the hard disk to an earlier state using any of the backup images stored in the protected area. Rescue and Recovery workspace runs independently of the Windows operating system. Therefore, you can start it by pressing the blue Access IBM button when prompted during startup.

After the Rescue and Recovery workspace opens you can perform a recovery operation, even if you are unable to start Windows. For more information about the Rapid Restore Ultra program, see "Backing up and restoring data" in Access IBM, your on-board help. For more information about the Rescue and Recovery, see "Introducing Rescue and Recovery" in Access IBM.

To recover the hard disk to its original contents, do the following:

**Note:** The recovery process might take up to 2 hours.

**Attention:** All of the files on the primary hard disk partition (usually drive C) will be lost in the recovery process. If possible, be sure to back up copies of the files you have saved on your drive C before you begin.

**Note:** You might need to use a diskette drive in the recovery process. Use a drive that is compatible with your ThinkPad computer.

1. If possible, save all your files and shut down your operating system.
2. Turn off your computer.
3. Turn on your computer. Watch the display carefully. When the following message is displayed, press the blue Access IBM button to open the Rescue and Recovery: "To interrupt normal startup, press the blue Access IBM button." The Rescue and Recovery workspace opens.
4. Click **Restore factory contents**.
5. Follow the instructions on the screen.

6. When the recovery process finishes, press the Enter key. Your computer will restart with the pre-installed operating system, drivers, and software.

---

### Upgrading the hard disk drive

You can replace a damaged hard disk drive yourself.

**Note:** Replace the hard disk drive only if you have it repaired. The connectors and bay of the hard disk drive were not designed for frequent changes, or drive swapping. The Rescue and Recovery workspace and the Product Recovery program are not included in the replacement hard disk drive.

#### Attention

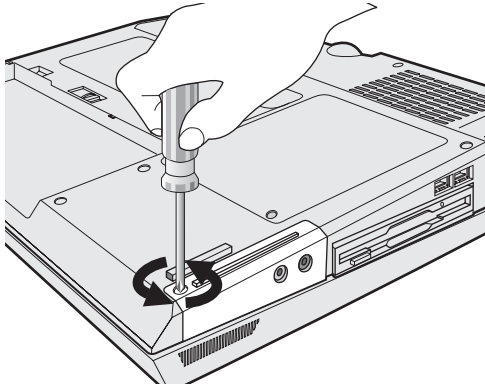
##### Handling a hard disk drive

- Do not drop the drive or subject it to physical shocks. Put the drive on a material, such as soft cloth, that absorbs the physical shock.
- Do not apply pressure to the cover of the drive.
- Do not touch the connector.

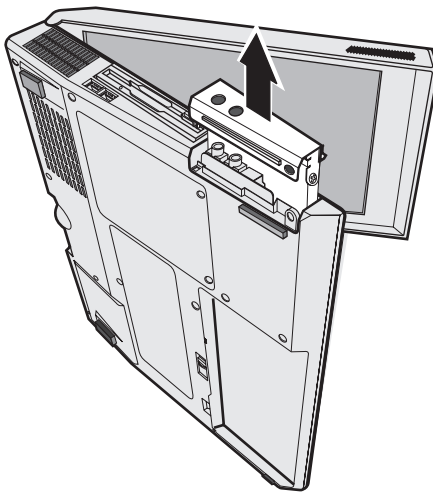
The drive is very sensitive. Incorrect handling can cause damage and permanent loss of data on the hard disk. Before removing the hard disk drive, make a backup copy of all the information on the hard disk, and then turn the computer off. Never remove the drive while the system is operating, in standby mode, or in hibernation mode.

To replace the hard disk drive, do the following:

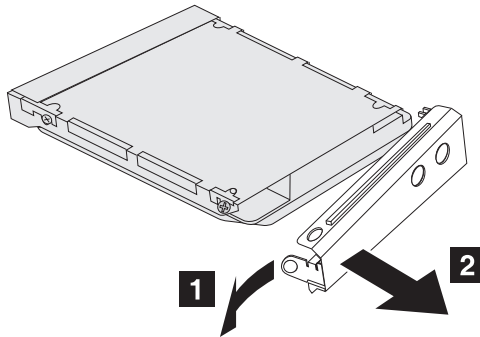
1. **Turn off the computer;** then disconnect the ac adapter and all cables from the computer.
2. Close the computer display, and turn the computer over.
3. Remove the battery.
4. Remove the screw that secures the hard disk drive.



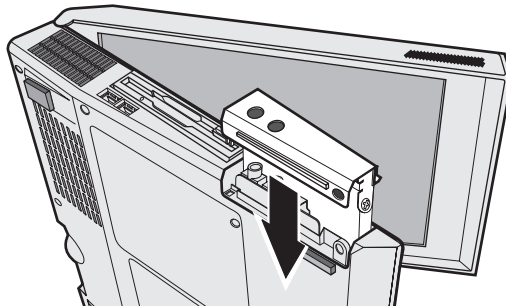
5. Open the computer display; then stand the computer on its side and remove the hard disk drive by pulling the cover away from the computer.



6. Do not remove the screws from the sides of the cover; instead, detach the cover from the hard disk drive by pulling in the direction of the arrows, first **1** and then **2**.



7. Attach the cover to a new hard disk drive.
8. Insert the hard disk drive and its cover into the hard disk drive bay; then firmly install them.



9. Turn the computer over so that its bottom side is up. Reinstall the screw.
10. Reinstall the battery.
11. Turn the computer over again. Connect the ac adapter and the cables to the computer.

---

## Replacing the battery

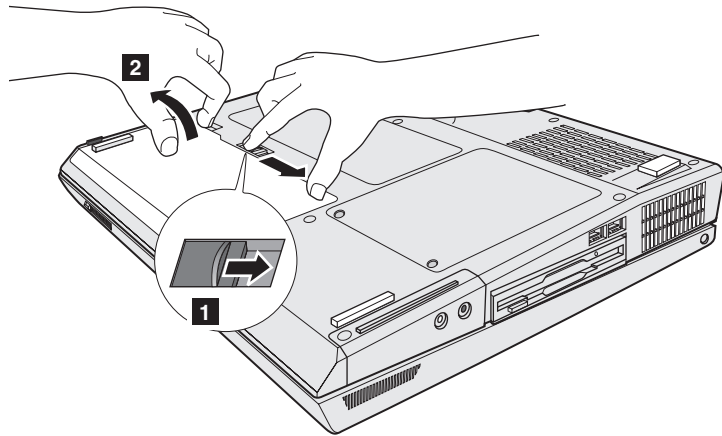
1. **Turn off the computer, or enter hibernation mode.** Then disconnect the ac adapter and all cables from the computer.

**Note:** If you are using a PC Card, the computer might not be able to enter hibernation mode. If this happens, turn off the computer.

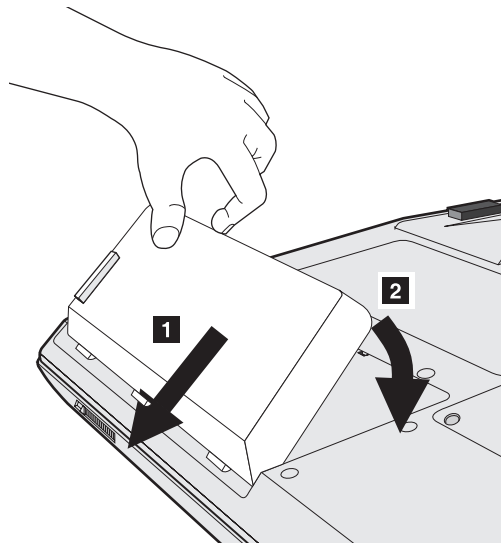
2. Close the computer display, and turn the computer over.
3. Slide the battery latch to unlock it **1**; then remove the battery **2**.

**Note:** The first position of the battery latch is for releasing the lock of the battery.

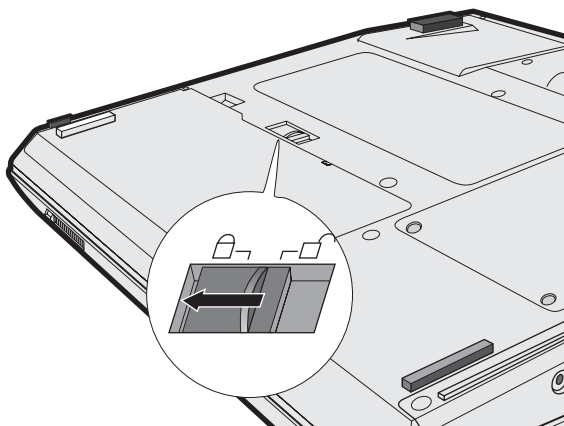




4. Align the side of a fully charged spare battery with the side of the battery space in the computer **1**; then gently push the battery into the space **2**.



5. Slide the battery latch to lock it.



6. Turn the computer over again. Connect the ac adapter and the cables to the computer.

---

## Chapter 3. Getting help and service

Getting help and service . . . . .	38	Calling the Customer Support Center . . . . .	38
Getting help on the Web . . . . .	38	Getting help around the world. . . . .	39

## Getting help and service

If you need help, service, technical assistance, or just want more information about ThinkPad computers, you will find a wide variety of sources available from Lenovo to assist you. This section contains information about where to go for additional information about ThinkPad computers, what to do if you experience a problem with your computer, and whom to call for service should it be necessary.

Microsoft Service Packs are the latest software source for Windows product updates. They are available via Web download (connection charges may apply) or via CD-ROM. For more specific information and links, go to [www.microsoft.com](http://www.microsoft.com). For technical assistance with installation of, or questions related to, Service Packs for your preloaded Microsoft Windows product, refer to the Microsoft Product Support Services Web site at <http://support.microsoft.com/directory/>, or you can contact Customer Support Center at the phone number(s) listed in "Worldwide telephone list" on page 65. Some fees might apply.

---

## Getting help on the Web

On the World Wide Web, the Lenovo Web site has up-to-date information about ThinkPad computers and support. The address for the ThinkPad computers home page is [www.lenovo.com/think](http://www.lenovo.com/think)

Lenovo provides an extensive Web site dedicated to mobile computing and to ThinkPad computers at [www.lenovo.com/think/support](http://www.lenovo.com/think/support). Research this Web site to learn how to solve problems, find new ways to use your computer, and learn about options that can make working with your ThinkPad computer even easier.

---

## Calling the Customer Support Center

If you have tried to correct the problem yourself and still need help, during the warranty period, you can get help and information by telephone through the Customer Support Center. The following services are available during the warranty period:

- Problem determination - Trained personnel are available to assist you with determining if you have a hardware problem and deciding what action is necessary to fix the problem.
- Lenovo hardware repair - If the problem is determined to be caused by Lenovo hardware under warranty, trained service personnel are available to provide the applicable level of service.
- Engineering change management - Occasionally, there might be changes that are required after a product has been sold. Lenovo or your reseller, if

authorized by Lenovo, will make selected Engineering Changes (ECs) available that apply to your hardware.

The following items are not covered:

- Replacement or use of non-ThinkPad parts or nonwarranted parts

**Note:** All warranted parts contain a 7-character identification in the format FRU XXXXXXX

- Identification of software problem sources
- Configuration of BIOS as part of an installation or upgrade
- Changes, modifications, or upgrades to device drivers
- Installation and maintenance of network operating systems (NOS)
- Installation and maintenance of application programs

Refer to your Lenovo hardware warranty for a full explanation of Lenovo warranty terms. Be sure to retain your proof of purchase to obtain warranty service.

If possible, be near your computer when you make your call in case the technical assistance representative needs to help you resolve a computer problem. Please ensure that you have downloaded the most current drivers and system updates, run diagnostics, and recorded information before you call. When calling for technical assistance, please have the following information available:

- Machine Type and Model
- Serial numbers of your computer, monitor, and other components, or your proof of purchase
- Description of the problem
- Exact wording of any error messages
- Hardware and software configuration information for your system

The telephone numbers for your Customer Support Center location are located in the Worldwide telephone list section of this guide.

**Note:** Telephone numbers are subject to change without notice. For the latest list of Customer Support Center telephone numbers and hours of operation, visit the Support Web site at [www.lenovo.com/think/support](http://www.lenovo.com/think/support)

---

## Getting help around the world

If you travel with your computer or relocate it to a country where your ThinkPad machine type is sold and serviced, International Warranty Service is available for your computer.

Service methods and procedures vary by country, and some services might not be available in all countries. International Warranty Service is delivered through the method of service (such as depot, carry-in, or on-site service) that is provided in the servicing country. Service centers in certain countries might not be able to service all models of a particular machine type. In some countries, fees and restrictions might apply at the time of service.

To determine whether your computer is eligible for International Warranty Service and to view a list of the countries where service is available, go to [www.lenovo.com/think/support](http://www.lenovo.com/think/support), and click **Warranty**. Eligible ThinkPad computers are identified by their four-digit machine types.

---

## Appendix A. Wireless related information

---

### Wireless interoperability

Wireless LAN Mini-PCI Adapter is designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) and/or Orthogonal Frequency Division Multiplexing (OFDM) radio technology, and is compliant to:

- The IEEE 802.11 Standard on Wireless LANs, as defined and approved by the Institute of Electrical and Electronics Engineers.
- The Wireless Fidelity (WiFi) certification as defined by the WECA (Wireless Ethernet Compatibility Alliance).

---

### Usage environment and your health

The Wireless LAN Mini-PCI Adapter emits radio frequency electromagnetic energy like other radio devices. However, the level of energy emitted is far less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because the Wireless LAN Mini-PCI Adapter operates within the guidelines found in radio frequency safety standards and recommendations, Lenovo believes the integrated wireless cards are safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of a Wireless LAN Mini-PCI Adapter card may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- Using integrated wireless cards on airplanes, or in hospitals
- In environments where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization (e.g. airport or hospital), you are encouraged to ask for authorization to use the Wireless LAN Mini-PCI Adapter prior to turning on the ThinkPad G40 computer.

---

## Authorized Operation Within the United States and Canada

The statement below regarding the extended channel mode is applicable when the system supports this function. To check the support of this function, see the properties of the installed wireless card by referring to the extended channel mode enablement instructions.

For systems with 802.11b wireless function supporting Extended Channel Mode:

This device may only be used with Access Points, which are authorized for use within the geography in which they are being used. The use of this device with an Access Point that is not Wi-Fi compliant and not authorized to be used in your geography could result in violation of government regulations. Consult the network administrator, the instruction manual, or the approval label for the Access Point to determine the authorization of your Access Point in your specific country or geographic region.

“Extended Channel Mode” should only be selected when the device is operated outside the USA and Canada to avoid the unlikely possibility of unauthorized operation. The use of this device outside the United States and Canada in “Extended Channel Mode” may use frequencies not authorized for use in the United States and Canada. When used with an authorized Wireless Access Point that is Wi-Fi compliant or in Ad Hoc mode, this device will operate in its authorized modes in all geographies.

Please reconfigure selected frequencies when you travel from one country to another.

---

## Enabling Extended Channel Mode

The statement below regarding the extended channel mode is applicable when the system supports this function. To check the support of this function, see the properties of the installed wireless card by referring to the extended channel mode enablement instructions.

In countries other than the United States and Canada, extra IEEE 802.11b channels may be supported. If you have a problem to connect to an Access Point, contact your system administrator or check your Access Point to know which channel is used. And if the 802.11b channel is 12 or greater, you will need to enable “Extended Channel Mode” as follows.

1. Start the computer and log on with administrative privileges.
2. Click **Start**, then right-click **My Computer** (for Windows 2000, right-click My Computer on the desktop) and select **Properties**.
3. Select the **Hardware** tab, and then click the **Device Manager** button.



4. Double-click **Network adapters**.
5. Right-click the **Wireless LAN Mini PCI Adapter** and select **Properties**.
6. Click the **Advanced** tab.
7. Select **Extended Channel Mode** and set the value to **Enable**.

**Note:** The above applies only to systems with the 802.11b wireless function that support Extended Channel Mode.



---

## Appendix B. Warranty information

---

### Lenovo Statement of Limited Warranty

LSOLW-00 05/2005

#### Part 1 - General Terms

*This Statement of Limited Warranty includes Part 1 - General Terms, Part 2 - Country-unique Terms, and Part 3 - Warranty Information. The terms of Part 2 replace or modify those of Part 1. The warranties provided by Lenovo Group Limited or one of its subsidiaries (called "Lenovo") in this Statement of Limited Warranty apply only to Machines you purchase for your use, and not for resale. The term "Machine" means a Lenovo machine, its options, features, conversions, upgrades or peripheral products, or any combination of them. The term "Machine" does not include any software programs, whether pre-loaded with the Machine, installed subsequently or otherwise. **Nothing in this Statement of Limited Warranty affects any statutory rights of consumers that cannot be waived or limited by contract.***

#### What this Warranty Covers

Lenovo warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to Lenovo's Official Published Specifications ("Specifications") which are available on request. The warranty period for the Machine starts on the original date of installation and is specified in Part 3 - Warranty Information. The date on your invoice or sales receipt is the date of installation unless Lenovo or your reseller informs you otherwise. Unless Lenovo specifies otherwise, these warranties apply only in the country or region in which you purchased the Machine.

**THESE WARRANTIES ARE YOUR EXCLUSIVE WARRANTIES AND REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD. SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

### **What this Warranty Does not Cover**

This warranty does not cover the following:

- any software programs, whether pre-loaded or shipped with the Machine, or installed subsequently;
- failure resulting from misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by you;
- failure caused by a product for which Lenovo is not responsible; and
- any non-Lenovo products, including those that Lenovo may procure and provide with or integrate into a Lenovo Machine at your request.

The warranty is voided by removal or alteration of identification labels on the Machine or its parts.

Lenovo does not warrant uninterrupted or error-free operation of a Machine.

Any technical or other support provided for a Machine under warranty, such as assistance with "how-to" questions and those regarding Machine set-up and installation, is provided **WITHOUT WARRANTIES OF ANY KIND**.

### **How to Obtain Warranty Service**

Warranty service may be provided by Lenovo, IBM, your reseller if authorized to perform warranty service, or an authorized warranty service provider. Each of them is referred to as a "Service Provider."

If the Machine does not function as warranted during the warranty period, contact a Service Provider. If you do not register the Machine with Lenovo, you may be required to present proof of purchase as evidence of your entitlement to warranty service.

### **What Lenovo Will Do to Correct Problems**

When you contact a Service Provider for service, you must follow the problem determination and resolution procedures that we specify. An initial diagnosis of your problem can be made either by a technician over the telephone or electronically by access to a support website.

The type of warranty service applicable to your Machine is specified in Part 3 - Warranty Information.

You are responsible for downloading and installing designated software updates from a support web site or from other electronic media, and following the instructions that your Service Provider provides. Software updates may include basic input/output system code (called "BIOS"), utility programs, device drivers, and other software updates.

If your problem can be resolved with a Customer Replaceable Unit (“CRU”) (e.g., keyboard, mouse, speaker, memory, hard disk drive), your Service Provider will ship the CRU to you for you to install.

If the Machine does not function as warranted during the warranty period and your problem cannot be resolved over the telephone or electronically, through your application of software updates, or with a CRU, your Service Provider, will either, at its discretion, 1) repair it to make it function as warranted, or 2) replace it with one that is at least functionally equivalent. If your Service Provider is unable to do either, you may return the Machine to your place of purchase and your money will be refunded.

As part of the warranty service, your Service Provider may also install selected engineering changes that apply to the Machine.

### **Exchange of a Machine or Part**

When the warranty service involves the exchange of a Machine or part, the item your Service Provider replaces becomes Lenovo’s property and the replacement becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item.

### **Your Additional Responsibilities**

Before your Service Provider exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service.

You also agree to:

1. ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange;
2. obtain authorization from the owner to have your Service Provider service a Machine that you do not own; and
3. where applicable, before service is provided:
  - a. follow the service request procedures that your Service Provider provides;
  - b. backup or secure all programs, data, and funds contained in the Machine; and
  - c. provide your Service Provider with sufficient, free, and safe access to your facilities to permit Lenovo to fulfill its obligations.
4. (a) ensure all information about identified or identifiable individuals (Personal Data) is deleted from the Machine (to the extent technically possible), (b) allow your Service Provider or a supplier to process on your behalf any remaining Personal Data as your Service Provider considers necessary to fulfill its obligations under this Statement of Limited Warranty (which may include shipping the Machine for such processing to

other service locations around the world), and (c) ensure that such processing complies with any laws applicable to such Personal Data.

### **Limitation of Liability**

Lenovo is responsible for loss of, or damage to, your Machine only while it is 1) in your Service Provider's possession or 2) in transit in those cases where Lenovo is responsible for the transportation charges.

Neither Lenovo nor your Service Provider are responsible for any of your confidential, proprietary or personal information contained in a Machine which you return for any reason. You should remove all such information from the Machine prior to its return.

Circumstances may arise where, because of a default on Lenovo's part or other liability, you are entitled to recover damages from Lenovo. In each such instance, regardless of the basis on which you are entitled to claim damages from Lenovo (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), except for any liability that cannot be waived or limited by applicable laws, Lenovo is liable for no more than

1. damages for bodily injury (including death) and damage to real property and tangible personal property for which Lenovo is legally liable; and
2. the amount of any other actual direct damages, up to the charges for the Machine that is subject of the claim.

This limit also applies to Lenovo's suppliers, resellers and your Service Provider. It is the maximum for which Lenovo, its suppliers, resellers, and your Service Provider are collectively responsible.

**UNDER NO CIRCUMSTANCES IS LENOVO, ITS SUPPLIERS, RESELLERS OR SERVICE PROVIDERS LIABLE FOR ANY OF THE FOLLOWING EVEN IF INFORMED OF THEIR POSSIBILITY: 1) THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, DATA; 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; OR 4) LOST PROFITS, BUSINESS REVENUE, GOODWILL OR ANTICIPATED SAVINGS. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

### **Governing Law**

Both you and Lenovo consent to the application of the laws of the country in which you acquired the Machine to govern, interpret, and enforce all of your

and Lenovo's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Statement of Limited Warranty, without regard to conflict of law principles.

**THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.**

### **Jurisdiction**

All of our rights, duties, and obligations are subject to the courts of the country in which you acquired the Machine.

## **Part 2 - Country-unique Terms**

### **AMERICAS**

#### **ARGENTINA**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Ordinary Commercial Court of the city of Buenos Aires.

#### **BOLIVIA**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the courts of the city of La Paz.

#### **BRAZIL**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the court of Rio de Janeiro, RJ.

#### **CHILE**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Civil Courts of Justice of Santiago.

#### **COLOMBIA**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Judges of the Republic of Colombia.

#### **ECUADOR**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Judges of Quito.

## **MEXICO**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Federal Courts of Mexico City, Federal District.

## **PARAGUAY**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the courts of the city of Asuncion.

## **PERU**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Judges and Tribunals of the Judicial District of Lima, Cercado.

**Limitation of Liability:** *The following is added at the end of this section:*

In accordance with Article 1328 of the Peruvian Civil Code the limitations and exclusions specified in this section will not apply to damages caused by Lenovo's willful misconduct ("dolo") or gross negligence ("culpa inexcusable").

## **URUGUAY**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the City of Montevideo Court's Jurisdiction.

## **VENEZUELA**

**Jurisdiction:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Courts of the Metropolitan Area Of the City of Caracas.

## **NORTH AMERICA**

**How to Obtain Warranty Service:** *The following is added to this Section:*

To obtain warranty service from IBM service in Canada or the United States, call 1-800-IBM-SERV (426-7378).

## **CANADA**

**Limitation of Liability:** *The following replaces item 1 of this section:*

1. damages for bodily injury (including death) or physical harm to real property and tangible personal property caused by Lenovo's negligence; and

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws in the Province of Ontario.



## UNITED STATES

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*  
laws of the State of New York.

## ASIA PACIFIC

### AUSTRALIA

**What this Warranty Covers:** *The following paragraph is added to this section:*  
The warranties specified in this Section are in addition to any rights you may have under the Trade Practices Act 1974 or other similar legislation and are only limited to the extent permitted by the applicable legislation.

**Limitation of Liability:** *The following is added to this section:*

Where Lenovo is in breach of a condition or warranty implied by the Trade Practices Act 1974 or other similar legislation, Lenovo's liability is limited to the repair or replacement of the goods or the supply of equivalent goods. Where that condition or warranty relates to right to sell, quiet possession or clear title, or the goods are of a kind ordinarily acquired for personal, domestic or household use or consumption, then none of the limitations in this paragraph apply.

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*  
laws of the State or Territory.

## CAMBODIA AND LAOS

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*  
laws of the State of New York, United States of America.

## CAMBODIA, INDONESIA, AND LAOS

**Arbitration:** *The following is added under this heading:*

Disputes arising out of or in connection with this Statement of Limited Warranty shall be finally settled by arbitration which shall be held in Singapore in accordance with the Arbitration Rules of Singapore International Arbitration Center ("SIAC Rules") then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the SIAC.

Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

#### **HONG KONG S.A.R. OF CHINA AND MACAU S.A.R. OF CHINA**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of Hong Kong Special Administrative Region of China.

#### **INDIA**

**Limitation of Liability:** *The following replaces items 1 and 2 of this section:*

1. liability for bodily injury (including death) or damage to real property and tangible personal property will be limited to that caused by Lenovo's negligence; and
2. as to any other actual damage arising in any situation involving nonperformance by Lenovo pursuant to, or in any way related to the subject of this Statement of Limited Warranty, the charge paid by you for the individual Machine that is the subject of the claim.

**Arbitration:** *The following is added under this heading*

Disputes arising out of or in connection with this Statement of Limited Warranty shall be finally settled by arbitration which shall be held in Bangalore, India in accordance with the laws of India then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the Bar Council of India. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

#### **JAPAN**

**Governing Law:** *The following sentence is added to this section:*

Any doubts concerning this Statement of Limited Warranty will be initially resolved between us in good faith and in accordance with the principle of mutual trust.

#### **MALAYSIA**

**Limitation of Liability:** The word "*SPECIAL*" in item 3 of the fifth paragraph is deleted.

#### **NEW ZEALAND**

**What this Warranty Covers:** *The following paragraph is added to this section:*

The warranties specified in this section are in addition to any rights you may have under the Consumer Guarantees Act 1993 or other legislation which cannot be excluded or limited. The Consumer Guarantees Act 1993 will not apply in respect of any goods which Lenovo provides, if you require the goods for the purposes of a business as defined in that Act.

**Limitation of Liability:** *The following is added to this section:*

Where Machines are not acquired for the purposes of a business as defined in the Consumer Guarantees Act 1993, the limitations in this Section are subject to the limitations in that Act.

#### **PEOPLE'S REPUBLIC OF CHINA (PRC)**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of the State of New York, United States of America (except when local law requires otherwise).

#### **PHILIPPINES**

**Limitation of Liability:** *Item 3 in the fifth paragraph is replaced by the following:*

**SPECIAL (INCLUDING NOMINAL AND EXEMPLARY DAMAGES), MORAL, INCIDENTAL, OR INDIRECT DAMAGES FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; OR**

**Arbitration:** The following is added: under this heading Disputes arising out of or in connection with this Statement of Limited

Warranty shall be finally settled by arbitration which shall be held in Metro Manila, Philippines in accordance with the laws of the Philippines then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the Philippine Dispute Resolution Center, Inc.. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

## **SINGAPORE**

**Limitation of Liability:** *The words "SPECIAL" and "ECONOMIC" in item 3 in the fifth paragraph are deleted.*

## **EUROPE, MIDDLE EAST, AFRICA (EMEA)**

### ***THE FOLLOWING TERMS APPLY TO ALL EMEA COUNTRIES:***

The terms of this Statement of Limited Warranty apply to Machines purchased from Lenovo or a Lenovo reseller.

### **How to Obtain Warranty Service:**

*Add the following paragraph in **Western Europe** (Andorra, Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Vatican State, and any country subsequently added to the European Union, as from the date of accession):*

The warranty for Machines acquired in Western Europe shall be valid and applicable in all Western Europe countries provided the Machines have been announced and made available in such countries.

If you purchase a Machine in one of the Western European countries, as defined above, you may obtain warranty service for that Machine in any of those countries from a Service Provider, provided the Machine has been announced and made available by Lenovo in the country in which you wish to obtain service.

If you purchased a Personal Computer Machine in Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia (FYROM), Moldova, Poland, Romania, Russia, Slovak Republic, Slovenia, or Ukraine, you may obtain warranty service for that Machine in any of those countries from a Service Provider, provided the Machine has been announced and made available by Lenovo in the country in which you wish to obtain service..

If you purchase a Machine in a Middle Eastern or African country, you may obtain warranty service for that Machine from a Service Provider within the country of purchase, provided the Machine has been announced and made available by Lenovo in that country. Warranty service in Africa is available within 50 kilometers of a Service Provider. You are responsible for transportation costs for Machines located outside 50 kilometers of a Service Provider.

#### **Governing Law:**

*The phrase "the laws of the country in which you acquired the Machine" is replaced by:*

1) "the laws of Austria" in **Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, FYR Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and FR Yugoslavia;** 2) "the laws of France" in **Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Republic, Djibouti, Democratic Republic of Congo, Equatorial Guinea, French Guiana, French Polynesia, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mayotte, Morocco, New Caledonia, Niger, Reunion, Senegal, Seychelles, Togo, Tunisia, Vanuatu, and Wallis & Futuna;** 3) "the laws of Finland" in **Estonia, Latvia, and Lithuania;** 4) "the laws of England" in **Angola, Bahrain, Botswana, Burundi, Egypt, Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates, the United Kingdom, West Bank/Gaza, Yemen, Zambia, and Zimbabwe;** and 5) "the laws of South Africa" in **South Africa, Namibia, Lesotho and Swaziland.**

**Jurisdiction:** *The following exceptions are added to this section:*

1) **In Austria** the choice of jurisdiction for all disputes arising out of this Statement of Limited Warranty and relating thereto, including its existence, will be the competent court of law in Vienna, Austria (Inner-City); 2) **in Angola, Bahrain, Botswana, Burundi, Egypt, Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates, West Bank/Gaza, Yemen, Zambia, and Zimbabwe** all disputes arising out of this Statement of Limited Warranty or related to its execution, including summary proceedings, will be submitted to the exclusive jurisdiction of the English courts; 3) **in Belgium and Luxembourg**, all disputes arising out of this Statement of Limited Warranty or related to its interpretation or its execution, the law, and the courts of the capital city, of the country of your registered office and/or commercial site location only are competent; 4) **in France, Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Republic, Djibouti, Democratic Republic of Congo, Equatorial Guinea, French Guiana, French Polynesia, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mayotte, Morocco, New Caledonia, Niger, Reunion, Senegal, Seychelles, Togo, Tunisia, Vanuatu, and Wallis & Futuna** all disputes arising out of this Statement of Limited Warranty or related to its violation or execution, including summary proceedings, will be settled exclusively by the Commercial Court of Paris; 5) **in Russia**, all disputes arising out of or in relation to the interpretation, the violation, the termination, the nullity of the execution of this Statement of Limited Warranty shall be settled by Arbitration Court of Moscow; 6) **in South Africa, Namibia, Lesotho and Swaziland**, both of us agree to submit all disputes relating to this Statement of Limited Warranty to the jurisdiction of the High Court in Johannesburg; 7) **in Turkey** all disputes arising out of or in connection with this Statement of Limited Warranty shall be resolved by the Istanbul Central (Sultanahmet) Courts and Execution Directorates of Istanbul, the Republic of Turkey; 8) in each of the following specified countries, any legal claim arising out of this Statement of Limited Warranty will be brought before, and settled exclusively by, the competent court of a) Athens for **Greece**, b) Tel Aviv-Jaffa for **Israel**, c) Milan for **Italy**, d) Lisbon for **Portugal**, and e) Madrid for **Spain**; and 9) **in the United Kingdom**, both of us agree to submit all disputes relating to this Statement of Limited Warranty to the jurisdiction of the English courts.

**Arbitration:** *The following is added under this heading:*

**In Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, FYR Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and FR Yugoslavia** all disputes arising out of this Statement of Limited Warranty or related to its violation,

termination or nullity will be finally settled under the Rules of Arbitration and Conciliation of the International Arbitral Center of the Federal Economic Chamber in Vienna (Vienna Rules) by three arbitrators appointed in accordance with these rules. The arbitration will be held in Vienna, Austria, and the official language of the proceedings will be English. The decision of the arbitrators will be final and binding upon both parties. Therefore, pursuant to paragraph 598 (2) of the Austrian Code of Civil Procedure, the parties expressly waive the application of paragraph 595 (1) figure 7 of the Code. Lenovo may, however, institute proceedings in a competent court in the country of installation.

**In Estonia, Latvia and Lithuania** all disputes arising in connection with this Statement of Limited Warranty will be finally settled in arbitration that will be held in Helsinki, Finland in accordance with the arbitration laws of Finland then in effect. Each party will appoint one arbitrator. The arbitrators will then jointly appoint the chairman. If arbitrators cannot agree on the chairman, then the Central Chamber of Commerce in Helsinki will appoint the chairman.

## EUROPEAN UNION (EU)

### ***THE FOLLOWING TERMS APPLY TO ALL EU COUNTRIES:***

The warranty for Machines acquired in EU countries is valid and applicable in all EU countries provided the Machines have been announced and made available in such countries.

**How to Obtain Warranty Service:** *The following is added to this section:*

To obtain warranty service from IBM service in EU countries, see the telephone listing in Part 3 - Warranty Information.

You may contact IBM service at the following address:

IBM Warranty & Service Quality Dept.  
PO Box 30  
Spango Valley  
Greenock  
Scotland PA16 0AH

## CONSUMERS

Consumers have legal rights under applicable national legislation governing the sale of consumer goods. Such rights are not affected by the warranties provided in this Statement of Limited Warranty.

### **AUSTRIA, DENMARK, FINLAND, GREECE, ITALY, NETHERLANDS, NORWAY, PORTUGAL, SPAIN, SWEDEN AND SWITZERLAND**

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

Except as otherwise provided by mandatory law:

1. Lenovo's liability for any damages and losses that may arise as a consequence of the fulfillment of its obligations under or in connection with this Statement of Limited Warranty or due to any other cause related to this Statement of Limited Warranty is limited to the compensation of only those damages and losses proved and actually arising as an immediate and direct consequence of the non-fulfillment of such obligations (if Lenovo is at fault) or of such cause, for a maximum amount equal to the charges you paid for the Machine.

The above limitation shall not apply to damages for bodily injuries (including death) and damages to real property and tangible personal property for which Lenovo is legally liable.

2. **UNDER NO CIRCUMSTANCES IS LENOVO, ITS SUPPLIERS, RESELLERS OR SERVICE PROVIDERS LIABLE FOR ANY OF THE FOLLOWING, EVEN IF INFORMED OF THEIR POSSIBILITY: 1) LOSS OF, OR DAMAGE TO, DATA; 2) INCIDENTAL OR INDIRECT DAMAGES, OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; 3) LOST PROFITS, EVEN IF THEY ARISE AS AN IMMEDIATE CONSEQUENCE OF THE EVENT THAT GENERATED THE DAMAGES; OR 4) LOSS OF BUSINESS, REVENUE, GOODWILL, OR ANTICIPATED SAVINGS.**

#### **FRANCE AND BELGIUM**

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

Except as otherwise provided by mandatory law:

1. Lenovo's liability for any damages and losses that may arise as a consequence of the fulfillment of its obligations under or in connection with this Statement of Limited Warranty is limited to the compensation of only those damages and losses proved and actually arising as an immediate and direct consequence of the non-fulfillment of such obligations (if Lenovo is at fault), for a maximum amount equal to the charges you paid for the Machine that has caused the damages.

The above limitation shall not apply to damages for bodily injuries (including death) and damages to real property and tangible personal property for which Lenovo is legally liable.

2. **UNDER NO CIRCUMSTANCES IS LENOVO, ITS SUPPLIERS, RESELLERS OR SERVICE PROVIDERS LIABLE FOR ANY OF THE FOLLOWING, EVEN IF INFORMED OF THEIR POSSIBILITY: 1) LOSS OF, OR DAMAGE TO, DATA; 2) INCIDENTAL OR INDIRECT DAMAGES, OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; 3) LOST PROFITS, EVEN IF THEY ARISE AS AN IMMEDIATE CONSEQUENCE OF THE EVENT THAT GENERATED THE DAMAGES; OR 4) LOSS OF BUSINESS, REVENUE, GOODWILL, OR ANTICIPATED SAVINGS.**



## THE FOLLOWING TERMS APPLY TO THE COUNTRY SPECIFIED:

### AUSTRIA

**The provisions of this Statement of Limited Warranty replace any applicable statutory warranties.**

**What this Warranty Covers:** *The following replaces the first sentence of the first paragraph of this section:*

The warranty for a Lenovo Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

*The following paragraphs are added to this section:*

The limitation period for consumers in action for breach of warranty is the statutory period as a minimum. In case your Service Provider is unable to repair a Lenovo Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

*The second paragraph does not apply.*

**What Lenovo Will Do to Correct Problems:** *The following is added to this section:*

During the warranty period, Lenovo will reimburse you for the transportation charges for the delivery of the failing Machine to IBM Service.

**Limitation of Liability:** *The following paragraph is added to this section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by Lenovo with fraud or gross negligence and for express warranty.

*The following sentence is added to the end of item 2:*

Lenovo's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

### EGYPT

**Limitation of Liability:** *The following replaces item 2 in this section:*

as to any other actual direct damages, Lenovo's liability will be limited to the total amount you paid for the Machine that is the subject of the claim.

*Applicability of suppliers, resellers, and Service Providers (unchanged).*

### FRANCE

**Limitation of Liability:** *The following replaces the second sentence of the first paragraph of this section:*

In such instances, regardless of the basis on which you are entitled to claim damages from Lenovo, Lenovo is liable for no more than: (items 1 and 2 unchanged).

## **GERMANY**

**What this Warranty Covers:** *The following replaces the first sentence of the first paragraph of this section:*

The warranty for a Lenovo Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

*The following paragraphs are added to this section:*

The minimum warranty period for Machines is twelve months. In case your Service Provider is unable to repair a Lenovo Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

*The second paragraph does not apply.*

**What Lenovo Will Do to Correct Problems:** *The following is added to this section:*

During the warranty period, transportation for delivery of the failing Machine to Lenovo or IBM service will be at Lenovo's expense.

**Limitation of Liability:** *The following paragraph is added to this section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by Lenovo with fraud or gross negligence and for express warranty.

*The following sentence is added to the end of item 2:*

Lenovo's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

## **HUNGARY**

**Limitation of Liability:** *The following is added at the end of this section:*

The limitation and exclusion specified herein shall not apply to liability for a breach of contract damaging life, physical well-being, or health that has been caused intentionally, by gross negligence, or by a criminal act.

The parties accept the limitations of liability as valid provisions and state that the Section 314.(2) of the Hungarian Civil Code applies as the acquisition price as well as other advantages arising out of the present Statement of Limited Warranty balance this limitation of liability.

## **IRELAND**

**What this Warranty Covers:** *The following is added to this section:*

Except as expressly provided in these terms and conditions, all statutory conditions, including all warranties implied, but without prejudice to the generality of the foregoing all warranties implied by the Sale of Goods Act 1893 or the Sale of Goods and Supply of Services Act 1980 are hereby excluded.

**Limitation of Liability:** *The following replaces the terms of section in its entirety:* For the purposes of this section, a “Default” means any act, statement, omission, or negligence on the part of Lenovo in connection with, or in relation to, the subject matter of this Statement of Limited Warranty in respect of which Lenovo is legally liable to you, whether in contract or tort. A number of Defaults which together result in, or contribute to, substantially the same loss or damage will be treated as one Default occurring on the date of occurrence of the last such Default.

Circumstances may arise where, because of a Default, you are entitled to recover damages from Lenovo.

This section sets out the extent of Lenovo’s liability and your sole remedy.

1. Lenovo will accept unlimited liability for death or personal injury caused by the negligence of Lenovo.
2. Subject always to the **Items for Which Lenovo is Not Liable** below, Lenovo will accept unlimited liability for physical damage to your tangible property resulting from the negligence of Lenovo.
3. Except as provided in items 1 and 2 above, Lenovo’s entire liability for actual damages for any one Default will not in any event exceed 125% of the amount you paid for the Machine directly relating to the Default.

#### **Items for Which Lenovo is Not Liable**

Save with respect to any liability referred to in item 1 above, under no circumstances is Lenovo, its suppliers, resellers or Service Providers liable for any of the following, even if Lenovo or they were informed of the possibility of such losses:

1. loss of, or damage to, data;
2. special, indirect, or consequential loss; or
3. loss of profits, business, revenue, goodwill, or anticipated savings.

#### **SLOVAKIA**

**Limitation of Liability:** *The following is added to the end of the last paragraph:* The limitations apply to the extent they are not prohibited under §§ 373-386 of the Slovak Commercial Code.

#### **SOUTH AFRICA, NAMIBIA, BOTSWANA, LESOTHO AND SWAZILAND**

**Limitation of Liability:** *The following is added to this section:*

Lenovo’s entire liability to you for actual damages arising in all situations

involving nonperformance by Lenovo in respect of the subject matter of this Statement of Warranty will be limited to the charge paid by you for the individual Machine that is the subject of your claim from Lenovo.

## UNITED KINGDOM

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

For the purposes of this section, a “Default” means any act, statement, omission, or negligence on the part of Lenovo in connection with, or in relation to, the subject matter of this Statement of Limited Warranty in respect of which Lenovo is legally liable to you, whether in contract or tort. A number of Defaults which together result in, or contribute to, substantially the same loss or damage will be treated as one Default.

Circumstances may arise where, because of a Default, you are entitled to recover damages from Lenovo.

This section sets out the extent of Lenovo’s liability and your sole remedy.

1. Lenovo will accept unlimited liability for:
  - a. death or personal injury caused by the negligence of Lenovo; and
  - b. any breach of its obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982, or any statutory modification or re-enactment of either such Section.
2. Lenovo will accept unlimited liability, subject always to the **Items for Which Lenovo is Not Liable** below, for physical damage to your tangible property resulting from the negligence of Lenovo.
3. Lenovo’s entire liability for actual damages for any one Default will not in any event, except as provided in items 1 and 2 above, exceed 125% of the total purchase price payable or the charges for the Machine directly relating to the Default.

These limits also apply to Lenovo’s suppliers, resellers and Service Providers. They state the maximum for which Lenovo and such suppliers, resellers and Service Providers are collectively responsible.

### **Items for Which Lenovo is Not Liable**

Save with respect to any liability referred to in item 1 above, under no circumstances is Lenovo or any of its suppliers, resellers or Service Providers liable for any of the following, even if Lenovo or they were informed of the possibility of such losses:

1. loss of, or damage to, data;
2. special, indirect, or consequential loss; or
3. loss of profits, business, revenue, goodwill, or anticipated savings.

### Part 3 - Warranty Information

This Part 3 provides information regarding the warranty applicable to your Machine, including the warranty period and type of warranty service Lenovo provides.

#### Warranty Period

The warranty period may vary by country or region and is specified in the table below. NOTE: "Region" means either Hong Kong or Macau Special Administrative Region of China.

A warranty period of 3 years on parts and 1 year on labor means that Lenovo provides warranty service without charge for:

- a. parts and labor during the first year of the warranty period; and
- b. parts only, on an exchange basis, in the second and third years of the warranty period. Your Service Provider will charge you for any labor provided in performance of the repair or replacement(s) in the second and third year of warranty period.

Machine Type	Country or Region of Purchase	Warranty period	Types of Warranty Service
2881	US, Canada, Brazil, Mexico, Japan, and Australia	Parts and Labor - 1 year Battery pack - 1 year	6 1
	All other countries except the US, Canada, Brazil, Mexico, Japan, and Australia	Parts and Labor - 1 year Battery pack - 1 year	7 1
2882	US, Canada, Brazil, Mexico, and Australia	Parts and Labor - 3 years Battery pack - 1 year	6 1
	All other countries except the US, Canada, Brazil, Mexico, and Australia	Parts and Labor - 3 years Battery pack - 1 year	7 1
	Japan	Parts and Labor - 1 year Battery pack - 1 year	6 1
2886	US	Parts and Labor - 1 year Battery pack - 1 year	6 1

#### Types of Warranty Service

If required, your Service Provider will provide repair or exchange service depending on the type of warranty service specified for your Machine in the above table and as described below. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of

warranty service may not be available in all worldwide locations, additional charges may apply outside your Service Provider's normal service area, contact your local Service Provider representative or your reseller for country and location specific information.

### **1. Customer Replaceable Unit ("CRU") Service**

Lenovo will ship CRUs to you for you to install, Tier 1 CRUs are easy to install whereas Tier 2 CRUs require some technical skill and tools. CRU information and replacement instructions are shipped with your Machine and are available from Lenovo at any time on your request. You may request that a Service Provider install CRUs, at no additional charge, under the type of warranty service designated for your Machine. Lenovo specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned. When return is required, 1) return instructions and a container are shipped with the replacement CRU, and 2) you may be charged for the replacement CRU if Lenovo does not receive the defective CRU within 30 days of your receipt of the replacement.

### **2. On-site Service**

Your Service Provider will either repair or exchange the failing Machine at your location and verify its operation. You must provide suitable working area to allow disassembly and reassembly of the Lenovo Machine. The area must be clean, well lit and suitable for the purpose. For some Machines, certain repairs may require sending the Machine to a designated service center.

### **3. Courier or Depot Service \***

You will disconnect the failing Machine for collection arranged by your Service Provider. A shipping container will be provided to you for you to return your Machine to a designated service center. A courier will pick up your Machine and deliver it to the designated service center. Following its repair or exchange, the service center will arrange the return delivery of the Machine to your location. You are responsible for its installation and verification.

### **4. Customer Carry-In or Mail-In Service**

You will deliver or mail as your Service Provider specifies (prepaid unless specified otherwise) the failing Machine suitably packaged to a designated location. After the Machine has been repaired or exchanged, it will be made available for your collection or, for Mail-in Service, the Machine will be returned to you at Lenovo's expense, unless your Service Provider specifies otherwise. You are responsible for the subsequent installation and verification of the Machine.

### **5. CRU and On-site Service**

This type of Warranty Service is a combination of Type 1 and Type 2 (see above).

### **6. CRU and Courier or Depot Service**

This type of Warranty Service is a combination of Type 1 and Type 3 (see above).

#### 7. CRU and Customer Carry-In or Mail-In Service

This type of Warranty Service is a combination of Type 1 and Type 4 (see above).

**When a 5, 6 or 7 type of warranty service is listed, your Service Provider will determine which type of warranty service is appropriate for the repair.**

\* This type of service is called ThinkPad EasyServ or EasyServ in some countries.

To obtain warranty service contact a Service Provider. In Canada or the United States, call 1-800-IBM-SERV (426-7378). In other countries, see the telephone numbers below.

#### Worldwide telephone list

Phone numbers are subject to change without notice. For the most current phone numbers, go to <http://www.lenovo.com/think/support> and click **Support phone list**.

Country or Region	Telephone Number
Africa	Africa: +44 (0)1475 555 055 South Africa: +27 11 3028888 and 0800110756 Central Africa: Contact the nearest IBM Business Partner
Argentina	0800-666-0011 (Spanish)
Australia	131-426 (English)
Austria	+43-1-24592-5901 (30 day up and running support) 01-211-454-610 (Warranty service and support) (German)
Belgium	02-210-9820 (30 day up and running support) 02-225-3611 (Warranty service and support) (Dutch) 02-210-9800 (30 day up and running support) 02-225-3611 (Warranty service and support) (French)
Bolivia	0800-0189 (Spanish)
Brazil	Sao Paulo region: (11) 3889-8986 Toll free outside Sao Paulo region: 0800-7014-815 (Brazilian Portuguese)
Canada	1-800-565-3344 (English, French) In Toronto only call: 416-383-3344
Chile	800-224-488 (Spanish)
China	800 810 1818 (Mandarin)

Country or Region	Telephone Number
China (Hong Kong S.A.R.)	Home PC: 852 2825 7799 Commercial PC: 852 8205 0333 ThinkPad and WorkPad: 852 2825 6580 (Cantonese, English, Putonghua)
Colombia	1-800-912-3021 (Spanish)
Costa Rica	284-3911 (Spanish)
Croatia	0800-0426
Cyprus	+357-22-841100
Czech Republic	+420-2-7213-1316
Denmark	4520-8200 (30 day up and running support) 7010-5150 (Warranty service and support) (Danish)
Dominican Republic	566-4755 566-5161 ext. 8201 Toll Free within the Dominican Republic: 1-200-1929 (Spanish)
Ecuador	1-800-426911 (Spanish)
El Salvador	250-5696 (Spanish)
Estonia	+386-61-1796-699
Finland	09-459-6960 (30 day up and running support) +358-001-4260 (Warranty service and support) (Finnish)
France	0238-557-450 (30 day up and running support) 0810-631-213 (Hardware Warranty service and support) 0810-631-020 (Software Warranty service and support) (French)
Germany	07032-15-49201 (30 day up and running support) 01805-25-35-58 (Warranty service and support) (German)
Greece	+30-210-680-1700
Guatemala	335-8490 (Spanish)
Honduras	Tegucigalpa & San Pedro Sula: 232-4222 San Pedro Sula: 552-2234 (Spanish)
Hungary	+36-1-382-5720
India	1600-44-6666 Alternate Toll Free: +91-80-26788940 (English)
Indonesia	800-140-3555 (Bahasa, Indonesian, English)
Ireland	01-815-9202 (30 day up and running support) 01-881-1444 (Warranty service and support) (English)



Country or Region	Telephone Number
Italy	02-7031-6101 (30 day up and running support) +39-800-820094 (Warranty service and support) (Italian)
Japan	Desktop: Toll free: 0120-887-870 For International: +81-46-266-4724  ThinkPad: Toll free: 0120-887-874 For International: +81-46-266-4724  Both of the above numbers will be answered with a Japanese language voice prompt. For telephone support in English, please wait for the Japanese voice prompt to end, and an operator will answer. Please ask for "English support please," and your call will be transferred to an English speaking operator.  PC Software: 0120-558-695 Overseas calls: +81-44-200-8666 (Japanese)
Korea	1588-5801 (Korean)
Latvia	+386-61-1796-699
Lithuania	+386-61-1796-699
Luxembourg	+352-298-977-5063 (French)
Malaysia	1800-88-8558 (English/Bahasa Melayu)
Malta	+356-23-4175
Mexico	001-866-434-2080 (Spanish)
Middle East	+44 (0)1475-555-055
Netherlands	+31-20-514-5770 (Dutch)
New Zealand	0800-446-149 (English)
Nicaragua	255-6658 (Spanish)
Norway	6681-1100 (30 day up and running support) 8152-1550 (Warranty service and support) (Norwegian)
Panama	206-6047 (Spanish)
Peru	0-800-50-866 (Spanish)
Philippines	1800-1888-1426 (English) +63-2-995-8420 (Philipino)
Poland	+48-22-878-6999
Portugal	+351-21-892-7147 (Portuguese)

Country or Region	Telephone Number
Romania	+4-021-224-4015
Russian Federation	+7-095-940-2000 (Russian)
Singapore	1800-3172-888 (English/Bahasa/Melayu)
Slovakia	+421-2-4954-1217
Slovenia	+386-1-4796-699
Spain	+34-91-714-7983, +34-91-397-6503 (Spanish)
Sri Lanka	+94-11-2448-442 (English)
Sweden	08-477-4420 (30 day up and running support) 077-117-1040 (Warranty service and support) (Swedish)
Switzerland	058-333-0900 (30 day up and running support) 0800-55-54-54 (Warranty service and support) (German/French/Italian)
Taiwan	886-2-8723-9799 (Mandarin)
Thailand	1-800-299-229 (Thai)
Turkey	00800-4463-2041 (Turkish)
United Kingdom	01475-555-055 (30 day up and running support) 08705-500-900 (Hardware Warranty service and support) 08457-151-516 (Software Warranty service and support) (English)
United States	1-800-426-7378 (English)
Uruguay	000-411-005-6649 (Spanish)
Venezuela	0-800-100-2011 (Spanish)
Vietnam	For northern area and Hanoi: 84-4-8436675 For southern area and Ho Chi Minh City: 84-8-829-5160 (English, Vietnamese)

## Guarantee supplement for Mexico

This supplement is considered part of Lenovo's Statement of Limited Warranty and shall be effective solely and exclusively for products distributed and commercialized within Territory of the Mexican United States. In the event of a conflict, the terms of this supplement shall apply.

All software programs pre-loaded in the equipment shall only have a thirty-(30) day guarantee for installation defects from the date of purchase. Lenovo is not responsible for the information in such software programs and/or any additional software programs installed by you or installed after purchase of the product.

Services not chargeable to the guarantee shall be charged to the final user, prior an authorization.

In the event that warranty repair is required please call the Customer Support Center at 001-866-434-2080, where you will be directed to the nearest Authorized Service Center. Should no Authorized Service Center exist in your city, location or within 70 kilometers of your city or location, the guarantee includes any reasonable delivery charges related to the transportation of the product to our nearest Authorized Service Center. Please call the nearest Authorized Service Center to obtain the necessary approvals or information concerning the shipment of the product and the shipment address.

To obtain a list of Authorized Service Centers, please visit:  
[http://www.pc.ibm.com/la/centros\\_de\\_servicio/servicio\\_mexico/servicio\\_mexico.html](http://www.pc.ibm.com/la/centros_de_servicio/servicio_mexico/servicio_mexico.html)

**Manufactured by:**

**SCI Systems de México, S.A. de C.V.**  
**Av. De la Solidaridad Iberoamericana No. 7020**  
**Col. Club de Golf Atlas**  
**El Salto, Jalisco, México**  
**C.P. 45680,**  
**Tel. 01-800-3676900**

**Marketing by:**

**Lenovo de México, Comercialización y**  
**Servicios, S. A. de C. V.**  
**Alfonso Nápoles Gándara No 3111**  
**Parque Corporativo de Peña Blanca**  
**Delegación Álvaro Obregón**  
**México, D.F., México**  
**C.P. 01210,**  
**Tel. 01-800-00-325-00**



## Appendix C. Customer Replaceable Units (CRUs)

For your ThinkPad computer, the following parts are designated Customer Replaceable Unit (CRU) parts.

Listed below are the CRUs and the documentation where removal/replacement instructions are located.

	Service and Troubleshooting Guide	Setup Poster	Access IBM	Online Hardware Maintenance Manual	Online Video
<b>Tier 1 CRUs</b>					
Battery	X		X	X	X
Hard disk drive	X		X	X	X
Optical drive			X	X	X
Optional Memory		X	X	X	X
AC adapter and power cord		X			
Phone line cord		X			
TrackPoint cap		X			

You can find instructions for replacing CRUs in Access IBM, your on-board help. To start Access IBM, press the blue Access IBM button on your ThinkPad.

If you are unable to access these instructions or if you have difficulty replacing a CRU, you can use either of the following additional resources:

- The Online Hardware Maintenance Manual and Online Videos available from the Support Web site  
<http://www.lenovo.com/think/support/site.wss/document.do?Indocid=part-video>
- The Customer Support Center. For the telephone number of the Support Center for your country or region, see "Worldwide telephone list" on page 65.



---

## Appendix D. Notices

---

### Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

*Lenovo (United States), Inc.  
500 Park Offices Drive, Hwy. 54  
Research Triangle Park, NC 27709  
U.S.A.  
Attention: Lenovo Director of Licensing*

LENOVO GROUP LTD. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or

indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary.

Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

### **Television output notice**

The following notice applies to models that have the factory-installed television-output feature.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

---

### **Electronic emissions notices**

The following information refers to ThinkPad G40, machine type 2881, 2882, and 2886

#### **Federal Communications Commission (FCC) Declaration of Conformity**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, used, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.



However, there is no guarantee the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:


- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by using other than recommended cables or connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible party:

Lenovo (United States) Inc.  
One Manhattanville Road  
Purchase, New York 10577  
Telephone: (919) 254-0532

 Tested To Comply  
With FCC Standards  
FOR HOME OR OFFICE USE

### **Industry Canada Class B emission compliance statement**

This Class B digital apparatus complies with Canadian ICES-003.

### **European Union EMC Directive conformance statement**

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a nonrecommended modification of the product, including the fitting of non-Lenovo option cards.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22/European

Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

---

## **Environmental notices for Japan**

If you are a company employee and need to dispose of a ThinkPad computer that is the property of the company, you must do so in accordance with the Law for Promotion of Effective Utilization of Resources. The computer is categorized as industrial waste. It should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with the Law for Promotion of Effective Utilization of Resources, IBM Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused computers. For details, visit the IBM Japan Web site at [www.ibm.com/jp/services/its/r/env/pcrecycle.html](http://www.ibm.com/jp/services/its/r/env/pcrecycle.html)

Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of home-used computers by the manufacturer was begun on October 1, 2003. For details, visit the IBM Japan Web site at [www.ibm.com/jp/services/its/r/env/pcrecycle\\_p.html](http://www.ibm.com/jp/services/its/r/env/pcrecycle_p.html)

### **Disposing of a ThinkPad computer component containing heavy metal**

The printed circuit board of a ThinkPad computer contains heavy metal. (Soldering with lead is used on the printed circuit board.) To properly dispose of the disused printed circuit board, follow the instructions in Collecting and recycling a disused ThinkPad computer.

### **Disposing of a disused lithium battery**

A button-shaped lithium battery is installed on the system board of your ThinkPad computer to back up the main battery.

If you want to replace it with a new one, contact your place of purchase or ask for a repair service provided by IBM. If you have replaced it by yourself and want to dispose of the disused lithium battery, insulate it with vinyl tape, contact your place of purchase, and follow the instructions.

If you use a ThinkPad computer at home and need to dispose of a lithium battery, you must comply with local ordinances and regulations.

### **Handling a disused ThinkPad battery pack**

Your ThinkPad computer has a lithium ion battery pack or a nickel metal hydride battery pack. If you are a company ThinkPad computer user and need to dispose of a battery pack, contact the proper person in ThinkPad sales, service, or marketing, and follow that person's instructions. For details,

visit the IBM Japan Web site at  
[www.ibm.com/jp/pc/environment/recycle/battery/](http://www.ibm.com/jp/pc/environment/recycle/battery/)

If you use a ThinkPad computer at home and need to dispose of a battery pack, you must comply with local ordinances and regulations.

---

## IBM Lotus Software Offer

**About the offer:** As a qualifying ThinkPad computer customer, you are receiving a single, limited license for the Lotus Notes “standalone” client and a single license for the Lotus SmartSuite software. These licenses entitle you to install and use this software on your new ThinkPad computer using one of the following options:

- **Media for this software is not included in this offer. If you do not already have the appropriate Lotus Notes Client or Lotus SmartSuite software media,** you can order a CD and install the software onto your computer. For more information, see “To order a CD” on page 78.
- **If you already have a licensed copy of the software,** you are entitled to make and use one additional copy of the software you have.

**About IBM Lotus Notes:** With your standalone, limited use Notes client, you can integrate your most valuable messaging, collaborative and personal information management (PIM) resources —like e-mail, calendar, to-do list — allowing you to access them while connected to or disconnected from your network. The standalone license does not include the right to access any IBM Lotus Domino servers; however this stand-alone license may be upgraded to a full Notes license at a reduced price. For more information visit <http://www.lotus.com/notes>.

**About IBM Lotus SmartSuite:** Lotus SmartSuite contains powerful applications with timesaving features that give you a head start on your work and guide you through individual tasks.

- Lotus Word Pro – Word Processor
- Lotus 1-2-3 – Spreadsheet
- Lotus Freelance Graphics – Presentation Graphics
- Lotus Approach – Database
- Lotus Organizer – Time, Contact, and Information Manager
- Lotus FastSite – Web Publisher
- Lotus SmartCenter – Internet Information Manager

**Customer Support:** For support information and phone numbers to help with initial installation of software, visit <http://www.lenovo.com/think/support>. To purchase technical support beyond this initial installation support, visit <http://www.lotus.com/passport>.

**International Program License Agreement:** The software licensed to you under this offer does not include software upgrades or technical support, and is subject to the terms and conditions of the IBM International Program License Agreement (IPLA) that accompanies the software. Your use of the Lotus SmartSuite and Lotus Notes programs described in this offer constitutes acceptance of the terms of this Offer and the IPLA. For further information regarding the IBM IPLA, visit <http://www.ibm.com/software/sla/sladb.nsf>. These programs are not for resale.

**Proof of Entitlement:** The proof of purchase for your qualifying ThinkPad computer, as well as this Offer document, should be retained as your proof of entitlement.

### **Purchasing Upgrades, Additional Licenses and Technical Support**

Software upgrades and technical support are available for a fee through IBM's Passport Advantage Program. For information about purchasing additional licenses for Notes, SmartSuite, or other Lotus products, visit <http://www.ibm.com> or <http://www.lotus.com/passport>.

### **To order a CD:**

**Important:** Pursuant to this Offer, you may order one CD media per license. You will need to provide the 7 digit serial number of the new ThinkPad computer that you purchased. The CD is provided at no charge; however, applicable shipping, duties and taxes may be imposed by local jurisdictions. Please allow 10 to 20 business days from receipt of your request for delivery.

#### **-In U. S. Or Canada:**

Call 800-690-3899

#### **-In Latin American Countries:**

Via the Internet: <http://smartsuite.modusmedia.com>

Mail address:

IBM - Lotus Notes and SmartSuite Program  
Modus Media International  
501 Innovation Avenue  
Morrisville, NC, USA 27560

Fax: 919-405-4495

To inquire about an order, contact:

[smartsuite\\_ibm@modusmedia.com](mailto:smartsuite_ibm@modusmedia.com)

#### **-In European Countries:**

Via the Internet: <http://ibm.modusmedia.co.uk>

Mail address:

IBM - Lotus Notes and SmartSuite Program  
P.O. Box 3118  
Cumbernauld, Scotland, G68 9JX

To inquire about an order, contact:

[ibm\\_smartsuite@modusmedia.com](mailto:ibm_smartsuite@modusmedia.com)

**-In Asia Pacific Countries:**

Via the Internet: <http://smartsuite.modusmedia.com>

Mail address:

IBM - Lotus Notes and SmartSuite Program

Modus Media International

eFulfillment Solution Center

750 Chai Chee Road

#03-10/14, Technopark at Chai Chee,

Singapore 469000

Fax: +65 6448 5830

To inquire about an order, contact:

[Smartsuiteapac@modusmedia.com](mailto:Smartsuiteapac@modusmedia.com)

---

**Trademarks**

The following terms are trademarks of Lenovo in the United States, other countries, or both:

Lenovo

ThinkPad

PS/2

Rapid Restore

Rescue and Recovery

ThinkPad

TrackPoint

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM (used under license)

Lotus

1-2-3

Approach

Lotus FastSite

Freelance Graphics

Lotus Notes

Lotus Organizer

Lotus SmartCenter

SmartSuite

Word Pro

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, Pentium, and Intel SpeedStep are trademarks of Intel Corporation in the United States and/or other countries.

Other company, product, or service names may be trademarks or service marks of others.

---

# Index

## B

- battery
  - problems 25
  - replacing 34
- BIOS Setup Utility 30

## C

- carrying the computer 6
- cleaning the computer 9
- computer display problems 23
- configuration setup 30
- Customer Replaceable Unit (CRU)
  - parts list 71

## D

- diagnosing problems 12

## E

- environment 6
- error messages 12
- errors without messages 17

## F

- features 3
- front view 2

## H

- hard disk
  - problems 25
  - upgrading 32
- help
  - and service 38
  - around the world 39
  - by telephone 38
  - by Web 38
- hibernation problems 21

## I

- important tips 6

## K

- keyboard problems 19

## L

- locations 2

## P

- password
  - problems 18
  - setting 7

- PC-Doctor for Windows 12
- power switch problems 19
- problems
  - diagnosing 12
  - hibernation 21
  - keyboard 19
  - password 18
  - power management 21
  - power switch 19
  - standby 21
  - startup 26
  - troubleshooting 12

## R

- rear view 2
- recovering preinstalled software 31
- Regulatory Notice xvii
- replacing, battery 34
- Rescue and Recovery 31

## S

- safety instruction v
- setup
  - BIOS 30
  - configuration 30
- specifications 5
- standby problems 21
- startup problem 26
- storage device upgrading 32

## T

- telephone, help by 38
- tips, important 6
- TrackPoint problems 20
- troubleshooting 12

## W

- warranty
  - information 45
- Web, help by 38







Part Number: 39T5951

(1P) P/N: 39T5951



## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>