



Solution Manual

MECHANICAL VIBRATIONS

THEORY AND APPLICATIONS

S. GRAHAM KELLY

Copyrighted Material

Mechanical Vibrations By Kelly Solution Manual

David Kirk



Mechanical Vibrations By Kelly Solution Manual:

Unveiling the Magic of Words: A Review of "**Mechanical Vibrations By Kelly Solution Manual**"

In a world defined by information and interconnectivity, the enchanting power of words has acquired unparalleled significance. Their capability to kindle emotions, provoke contemplation, and ignite transformative change is truly awe-inspiring. Enter the realm of "**Mechanical Vibrations By Kelly Solution Manual**," a mesmerizing literary masterpiece penned by a distinguished author, guiding readers on a profound journey to unravel the secrets and potential hidden within every word. In this critique, we shall delve to the book is central themes, examine its distinctive writing style, and assess its profound affect the souls of its readers.

https://staging.conocer.cide.edu/book/virtual-library/default.aspx/estructuras_sindicales_elementos_para_un_analisis_comparativo_coleccion_cuadernos_simon_rodriguez.pdf

Table of Contents Mechanical Vibrations By Kelly Solution Manual

1. Understanding the eBook Mechanical Vibrations By Kelly Solution Manual
 - The Rise of Digital Reading Mechanical Vibrations By Kelly Solution Manual
 - Advantages of eBooks Over Traditional Books
2. Identifying Mechanical Vibrations By Kelly Solution Manual
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Mechanical Vibrations By Kelly Solution Manual
 - User-Friendly Interface
4. Exploring eBook Recommendations from Mechanical Vibrations By Kelly Solution Manual
 - Personalized Recommendations
 - Mechanical Vibrations By Kelly Solution Manual User Reviews and Ratings

- Mechanical Vibrations By Kelly Solution Manual and Bestseller Lists
- 5. Accessing Mechanical Vibrations By Kelly Solution Manual Free and Paid eBooks
 - Mechanical Vibrations By Kelly Solution Manual Public Domain eBooks
 - Mechanical Vibrations By Kelly Solution Manual eBook Subscription Services
 - Mechanical Vibrations By Kelly Solution Manual Budget-Friendly Options
- 6. Navigating Mechanical Vibrations By Kelly Solution Manual eBook Formats
 - ePub, PDF, MOBI, and More
 - Mechanical Vibrations By Kelly Solution Manual Compatibility with Devices
 - Mechanical Vibrations By Kelly Solution Manual Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Mechanical Vibrations By Kelly Solution Manual
 - Highlighting and Note-Taking Mechanical Vibrations By Kelly Solution Manual
 - Interactive Elements Mechanical Vibrations By Kelly Solution Manual
- 8. Staying Engaged with Mechanical Vibrations By Kelly Solution Manual
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Mechanical Vibrations By Kelly Solution Manual
- 9. Balancing eBooks and Physical Books Mechanical Vibrations By Kelly Solution Manual
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Mechanical Vibrations By Kelly Solution Manual
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Mechanical Vibrations By Kelly Solution Manual
 - Setting Reading Goals Mechanical Vibrations By Kelly Solution Manual
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Mechanical Vibrations By Kelly Solution Manual
 - Fact-Checking eBook Content of Mechanical Vibrations By Kelly Solution Manual
 - Distinguishing Credible Sources

13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Mechanical Vibrations By Kelly Solution Manual Introduction

In today's digital age, the availability of Mechanical Vibrations By Kelly Solution Manual books and manuals for download has revolutionized the way we access information. Gone are the days of physically flipping through pages and carrying heavy textbooks or manuals. With just a few clicks, we can now access a wealth of knowledge from the comfort of our own homes or on the go. This article will explore the advantages of Mechanical Vibrations By Kelly Solution Manual books and manuals for download, along with some popular platforms that offer these resources. One of the significant advantages of Mechanical Vibrations By Kelly Solution Manual books and manuals for download is the cost-saving aspect. Traditional books and manuals can be costly, especially if you need to purchase several of them for educational or professional purposes. By accessing Mechanical Vibrations By Kelly Solution Manual versions, you eliminate the need to spend money on physical copies. This not only saves you money but also reduces the environmental impact associated with book production and transportation. Furthermore, Mechanical Vibrations By Kelly Solution Manual books and manuals for download are incredibly convenient. With just a computer or smartphone and an internet connection, you can access a vast library of resources on any subject imaginable. Whether you're a student looking for textbooks, a professional seeking industry-specific manuals, or someone interested in self-improvement, these digital resources provide an efficient and accessible means of acquiring knowledge. Moreover, PDF books and manuals offer a range of benefits compared to other digital formats. PDF files are designed to retain their formatting regardless of the device used to open them. This ensures that the content appears exactly as intended by the author, with no loss of formatting or missing graphics. Additionally, PDF files can be easily annotated, bookmarked, and searched for specific terms, making them highly practical for studying or referencing. When it comes to accessing Mechanical Vibrations By Kelly Solution Manual books and manuals, several platforms offer an extensive collection of resources. One such platform is Project Gutenberg, a nonprofit organization that provides over 60,000 free eBooks. These books are primarily in the public domain, meaning they can be freely distributed and downloaded. Project Gutenberg offers a wide range of classic literature, making it an excellent resource for literature enthusiasts. Another popular platform for Mechanical Vibrations By Kelly Solution Manual books and manuals is Open Library. Open Library is an initiative of the

Internet Archive, a non-profit organization dedicated to digitizing cultural artifacts and making them accessible to the public. Open Library hosts millions of books, including both public domain works and contemporary titles. It also allows users to borrow digital copies of certain books for a limited period, similar to a library lending system. Additionally, many universities and educational institutions have their own digital libraries that provide free access to PDF books and manuals. These libraries often offer academic texts, research papers, and technical manuals, making them invaluable resources for students and researchers. Some notable examples include MIT OpenCourseWare, which offers free access to course materials from the Massachusetts Institute of Technology, and the Digital Public Library of America, which provides a vast collection of digitized books and historical documents. In conclusion, Mechanical Vibrations By Kelly Solution Manual books and manuals for download have transformed the way we access information. They provide a cost-effective and convenient means of acquiring knowledge, offering the ability to access a vast library of resources at our fingertips. With platforms like Project Gutenberg, Open Library, and various digital libraries offered by educational institutions, we have access to an ever-expanding collection of books and manuals. Whether for educational, professional, or personal purposes, these digital resources serve as valuable tools for continuous learning and self-improvement. So why not take advantage of the vast world of Mechanical Vibrations By Kelly Solution Manual books and manuals for download and embark on your journey of knowledge?

FAQs About Mechanical Vibrations By Kelly Solution Manual Books

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Mechanical Vibrations By Kelly Solution Manual is one of the best book in our library for free trial. We provide copy of Mechanical Vibrations By Kelly Solution Manual in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Mechanical Vibrations By Kelly Solution Manual. Where to download Mechanical Vibrations By Kelly Solution Manual online

for free? Are you looking for Mechanical Vibrations By Kelly Solution Manual PDF? This is definitely going to save you time and cash in something you should think about.

Find Mechanical Vibrations By Kelly Solution Manual :

estructuras sindicales elementos para un analisis comparativo coleccion cuadernos simon rodriguez

estrogen a complete guide to menopause and hormone replacement therapy

estetica historia y fundamentos

~~essentials of patient education~~

essentials of infantry training 4ed

essentials of christian theology

essentials of psychology/web enhancedpb 6th 01

~~establishing a hostel~~

estrogen alternative

eternal london a sketch

essentials of behaviour genetics

esther and the king

~~ethan frome and other short fiction~~

essential mathematics for economists

essentials of psych explor & appl

Mechanical Vibrations By Kelly Solution Manual :

cadwell psg operation manual apex artofliving org - Aug 27 2022

web cadwell psg operation manual cadwell psg operation manual 2 downloaded from 941ceo com on 2020 09 16 by guest

lung disease is a major indication for the

cadwell psg operation manual 941ceo com - Jul 26 2022

web cadwell psg operation manual 2 10 downloaded from uniport edu ng on august 5 2023 by guest searches and a

convenient cme program of up to 60 category 1 credits the

cadwell psg operation manual uniport edu ng - May 24 2022

web cadwell psg operation manual 1 cadwell psg operation manual if you ally craving such a referred cadwell psg operation

manual books that will offer you worth get the

in lab psg cadwell clinical solutions for sleep - Oct 09 2023

web cadwell s sleep diagnostic solutions guide gives you a comprehensive overview of the hardware software carts supplies accessories and electrodes offered to support the

[cadwell psg operation manual cdn writermag com](#) - Feb 01 2023

web cadwell psg operation manual downloaded from ams istanbul edu tr by guest mckee kerr weedopedia jose luis hinojosa an up to date superbly illustrated practical guide

cadwell psg operation manual portal nivbook co il - Nov 29 2022

web phone and fax numbers 1 800 245 3001 u s a toll free 1 509 735 6481 1 509 783 6503 fax

[cadwell psg operation manual ams istanbul edu tr](#) - Dec 31 2022

web 4 cadwell psg operation manual 2021 10 27 learning this is one of the most significant military books of the twentieth century by an outstanding soldier of independent mind it

[cadwell psg operation manual solutions milnerbrowne](#) - Apr 03 2023

web jun 20 2023 cadwell psg operation manual pdf this is likewise one of the factors by obtaining the soft documents of this cadwell psg operation manual pdf by online you

[cadwell psg operation manual pdf full pdf support ortex](#) - Sep 08 2023

web collected from over 10 000 tumors and normal tissues and updated appendices containing detailed antibody information for both manual and automated staining procedures

[cadwell psg operation manual pdf download only](#) - Mar 02 2023

web 2 cadwell psg operation manual 2023 02 19 units with optimal standards for the treatment of pathological conditions in normal weight patients are often structurally and

cadwell psg operation manual vps huratips com - Sep 27 2022

web 2 cadwell psg operation manual 2022 03 01 and social issues giving readers quick access to the most important information needed to properly diagnose and manage

cadwell technical manuals cadwell estore - Jul 06 2023

web cadwell psg operation manual 2013 07 27 4 10 cadwell psg operation manual service manual psg manualzilla sep 24 2023 details on operation of hot runner controller see

[cadwell psg operation manual 2023 devgts enel](#) - Jun 05 2023

web 2 cadwell psg operation manual 2020 09 17 friends and family most if not all are beginner friendly and can be completed in a few hours instant stitchification so grab

cadwell psg operation manual webster mei edu - Apr 22 2022

web jul 21 2023 cadwell psg operation manual 1 7 downloaded from uniport edu ng on july 21 2023 by guest cadwell psg operation manual as recognized adventure as

cadwell psg operation manual amoa arthouse org - Dec 19 2021

cadwell psg operation manual uniport edu ng - Jun 24 2022

web apr 30 2023 cadwell psg operation manual 1 1 downloaded from uniport edu ng on april 30 2023 by guest cadwell psg operation manual thank you definitely much for

contact cadwell usa us territories and the caribbean sales - Oct 29 2022

web cadwell psg operation manual 3 3 bedside impedance checks a color coded remote input box simplifies the connection of electrodes and sensors easynet patient

george cadwell wikipedia - Feb 18 2022

web 4 cadwell psg operation manual 2020 07 19 analysis highly illustrated format provides clarity on complex procedures a new editor and 50 new contributors bring you the

psg and hsat sleep study equipment cadwell sleep - Aug 07 2023

web cadwell technical manuals arc cascade easy and sierra cadwell technical manuals arc apollo apollo cadwell technical manuals arc essentia cadwell technical

cadwell psg operation manual webster mei edu - Jan 20 2022

web manual thank you entirely much for downloading cadwell psg operation manual maybe you have knowledge that people have look numerous time for their favorite books

cadwell psg operation manual archive imba com - May 04 2023

web cadwell psg operation manual notube easy iii psg cadwell operator s manual pdfsdocuments2 com cadwell psg operation manual costamagarakis com cadwell

cadwell psg operation manual uniport edu ng - Mar 22 2022

web george cadwell february 21 1773 august 1 1826 was an american pioneer politician and physician from connecticut after cadwell studied medicine in vermont he married

racconti del crimine volume ii apple books - Oct 10 2022

web l itinerario artistico di tanizaki jun ichiro 1886 1965 può essere quasi interamente ripercorrendo racconti del crimine volume ii by jun ichirō tanizaki goodreads

racconti del crimine vol 1 tanizaki junichiro libreria ibs - Jul 07 2022

web racconti del crimine volume 1 recensione di salvatore argiolas autore jun ichiro tanizaki editore marsilio traduzione elisa procchieschi veronica de pieri alberto

racconti del crimine thrillernord - Jun 06 2022

web racconti del crimine junichiro tanizaki download on z library z library download books for free find books

racconti del crimine volume i google play - Jun 18 2023

web jul 11 2019 racconti del crimine volume i italian edition kindle edition by tanizaki jun ichirō bienati luisa download it once and read it on your kindle device pc

racconti del crimine marsilio editori - Aug 28 2021

loading interface goodreads - Apr 04 2022

web storie criminali casi internazionali che hanno fatto scalpore tra i più controversi della cronaca nera degli stati uniti guarda tutte le puntate su discovery

liverpool narcos recensione della docu serie sky esquire - Sep 28 2021

web racconti del crimine volume ii pp 264 1 ed 2020 letteratura universale 978 88 297 0574 0 libro 16 00 euro ebook filo conduttore di questa avvincente selezione di

racconti del crimine covo della ladra - Feb 02 2022

web oct 20 2023 gaza i racconti dei superstiti dei raid israeliani intere famiglie sepolte insieme nello zaino di un bimbo il fratello morto le testimonianze il giorno dopo il raid a

storie criminali tutte le puntate sono su discovery - Mar 03 2022

web l itinerario artistico di tanizaki jun ichiro 1886 1965 può essere quasi interamente ripercorso dal lettore italiano che dispone in traduzione di molti titoli tra racconti e

racconti del crimine vol i jun ichiro tanizaki - Aug 08 2022

web racconti del crimine vol 1 è un ebook di tanizaki junichiro pubblicato da marsilio nella collana letteratura universale il convivio a 9 99 il file è in formato epub2 con adobe

racconti del crimine volume i formato kindle amazon it - Nov 11 2022

web oct 29 2020 il segreto ambientato nel quartiere dei divertimenti di asakusa e un ciuffo di capelli nella yokohama devastata dal terremoto del 1923 testimoniano come

gaza i racconti dei superstiti dei raid israeliani intere famiglie - Jan 01 2022

web aug 22 2023 nuova puntata podcast di crimini ad arte racconti del crimine di junichiro tanizakicovo della ladra

racconti del crimine volume ii italian edition kindle edition - Apr 16 2023

web jul 11 2019 racconti del crimine volume i ebook letteratura universale marsilio by jun ichiro tanizaki read a sample format ebook series letteratura universale marsilio

racconti del crimine crimine ad arte 5 covo della ladra - Nov 30 2021

web traduzioni in contesto per storie di crimine in italiano inglese da reverso context storie di crimine mistero orrore fantasia o burlesque le terranno compagnia per due

amazon it racconti del crimine vol 1 tanizaki junichiro - Dec 12 2022

web racconti del crimine volume i ebook tanizaki jun ichirō bienati luisa amazon it libri passa al contenuto principale it ciao scegli il tuo indirizzo kindle store seleziona la

racconti del crimine volume i apple books - Feb 14 2023

web racconti del crimine vol 1 tanizaki junichiro bienati luisa amazon com au books

racconti del crimine volume i italian edition kindle edition - May 17 2023

web oct 29 2020 racconti del crimine volume ii italian edition kindle edition by tanizaki jun ichirō bienati luisa download it once and read it on your kindle device pc

racconti del crimine marsilio editori - Aug 20 2023

web racconti del crimine vol 1 è un libro di junichiro tanizaki pubblicato da marsilio nella collana letteratura universale acquista su ibs a 16 00

racconti del crimine junichiro tanizaki download on z library - May 05 2022

web discover and share books you love on goodreads

storie di crimine traduzione in inglese reverso context - Oct 30 2021

web liverpool narcos è uno dei migliori racconti sul traffico di droga su sky la miniserie documentario di anthony philipson uno sguardo inquietante e rivelatore sulla città

racconti del crimine by guy de maupassant goodreads - Sep 21 2023

web 3 93 15 ratings1 review per maupassant valgono regole opposte a quelle del racconto giallo i delitti delle sue novelle i suoi stessi assassini prescindono dalla struttura e dalle

racconti del crimine vol 1 junichiro tanizaki libro marsilio - Jul 19 2023

web racconti del crimine volume i ebook written by jun ichirō tanizaki read this book using google play books app on your pc android ios devices download for offline reading

racconti del crimine volume i overdrive - Mar 15 2023

web jul 11 2019 filo conduttore di questa avvincente selezione di sei racconti del periodo giovanile di tanizaki è il genere del romanzo poliziesco per la strada 1920 era stato

racconti del crimine vol 1 paperback 11 july 2019 - Jan 13 2023

web scopri racconti del crimine vol 1 di tanizaki junichiro bienati luisa spedizione gratuita per i clienti prime e per ordini a partire da 29 spediti da amazon

racconti del crimine volume ii by jun ichirō tanizaki goodreads - Sep 09 2022

web jan 10 2021 racconti del crimine vol i di jun ichiro tanizaki in questa raccolta di racconti sei per la precisione compare l'esordio di tanizaki nelle storie del crimine

how do you wire the mastercool evaporative cooler to the house - Jun 04 2022

web jul 7 2013 from the power whip that is connected to the house there are 4 wires there is a red an orange a blue and a white wire from the receptacle in the cooler there are an orange a black a red 2 white a white w a blue stripe a green a black with a yellow stripe and a green hvac technician the home smithy okay

evaporative cooler controller replacement on mastercool - Jul 05 2022

web may 10 2018 replacing the controller board in a mastercool mcp44 with an aftermarket evaporative cooler controller with thermostat seems the mastercool mcp44 tends to ha

wall control thermostat and 2 speed evaporative cooler - Mar 13 2023

web wall control thermostat 2 speed evaporative cooler control wire nut for common earth connection spare 3 15 amp fuse for control jumper wire for link to n link to be used only when both fan and pump voltages are the same additional requirements

mastercool evaporative cooler thermostat the home depot - Jan 11 2023

web jun 20 2015 easy to install in an existing outlet box minimal wiring required rain proof control box included kit includes wall control thermostat 2 speed control wire nut for common earth connection spare 3 15 amp fuse for control jumper wire for link to n link

model 110423 1 masterstat wall control thermostat and 2 - May 15 2023

web 1 route an insulated three conductor thermostat cable or similar from the appliance control box to the outlet box leaving about six inches protruding 2 route the wiring through the opening in the wall control mounting plate screw the mounting plate to the outlet box 3 connect the wires to the terminals as per the wiring connection

mrcool mst03 universal smart thermostat user manual - Aug 06 2022

web use a pencil to mark the mounting holes 3 remove the wall plate from the wall and drill two holes in the wall as marked gently tap anchors provided into the drilled holes until flush with the wall 4 position the wall plate over the holes pulling wires through the wiring opening see fig 5 5

installation operation manual - Jul 17 2023

web electrical connections should be done by a qualified electrician so that all electrical wiring will conform to your local codes 3 always turn off power and unplug motor and pump inside the cooler before installing or performing any maintenance 4 your cooler will run on either 120v or 240v a c single phase 60 hz cycle current 5

115 volt cooler control thermostat retrofit kit for - Nov 09 2022

web product overview for 115 volt application this kit can be used to replace the interior control box and thermostat combination on the mastercool plus or mastercool contractor s series cooler some of which are now obsolete including mastercool thermostat 38g223 110423 2 grainger - Feb 12 2023

web product description these evaporative cooler accessories keep commercial ducted coolers functional and provide control of their operation they re used for applications such as setting the temperature at which a cooler will turn on or off and replacing worn or broken components product details feedback

mastercool thermostat for air conditioner wayfair - Apr 02 2022

web easy to install in an existing outlet box minimal wiring required rain proof control box included kit includes wall control thermostat 2 speed control wire nut for common earth connection spare 3 15 amp fuse for control and jumper wire for link to n link material plastic number of fan speeds 2 voltage 240 volts v

mastercool controller wiring doityourself com community - Oct 08 2022

web jun 21 2021 i m swapping my old swamp cooler thermostat out for a new one i currently have a round 6 dial that uses 4 wires i do understand that i will only be using 3 of the wires i m a bit confused about the wiring of the new controller here is the controller currently installed

mastercool masterstat digital evaporative cooler thermostat - May 03 2022

web the masterstat cooler thermostat is easy to install in an existing outlet box with minimal wiring required a rain proof control box is included with the ducted evaporative cooler thermostat for protection control box dimensions 2 38 in d x 6 25 in w x 8 in h easy to install in an existing outlet box minimal wiring required

amazon com mastercool thermostat - Mar 01 2022

web non programmable thermostats for home 1 heat 1 cool diy instal c wire not required new 2023 honeywell home rth8800wf2022 t5 wifi smart thermostat 7 day programmable touchscreen alexa ready geofencing technology energy

user manual mastercool 110423 2 thermostat manualsfile - Jun 16 2023

web system overview this control system is intended to be used with an evaporative cooler with a 2 speed blower and a water pump it will also operate a water purge pump or valve if equipped the control is designed for fan motors up to 1hp 120v or 2hp 240v with water pump and purge pump up to 2a 120v or 1a 240v

mastercool inc manufacturer of air conditioning refrigeration - Sep 07 2022

web technical assistance manifolds o ring repair kits for ball valve manifolds hydraulic pumps troubleshooting for 71201 71500 71601 71700 replacement parts for 71201 replacement parts for 71202 repair for 71500 replacement parts for 71500

mastercool thermostat wiring diagram database - Jan 31 2022

web aug 19 2020 mastercool thermostat wiring diagram source kennspenns com before reading a new schematic get familiar and understand each of the symbols read the particular schematic like a roadmap i print out the schematic in addition to highlight the signal i m diagnosing to be able to make sure i am staying on right path

masterstat thermostat for evaporative coolers amazon com - Apr 14 2023

web kit includes wall control thermostat 2 speed control wire nut for common earth connection spare 3 15 amp fuse for control jumper wire for link to n link easy to install in an existing outlet box minimal wiring required compatible with mastercool ada51 71 ada5112 7112 asa51 71 asa5112 7112 aua51 71 aua5112 7112 all ad1c

mastercool thermostat wiring diagram schematron org - Sep 19 2023

web aug 12 2018 thermostat pdf manual download connect the wires in accordance with the wiring diagram on next page wiring the mastercool programmable thermostat is convenient to install and includes rain proof control box it comes with assembled dimensions of in d x in w x in h it is constructed of plastic for long lasting durability 5

masterstat 110423 2 installation instructions manualslib - Aug 18 2023

web view and download masterstat 110423 2 installation instructions online wall control thermostat and 2 speed evaporative cooler control system 110423 2 thermostat pdf manual download

mastercool user manuals download manualslib - Dec 10 2022

web view download of more than 257 mastercool pdf user manuals service manuals operating guides test equipment user manuals operating guides specifications