

# Comments On The Patent Application Drafting Assignment

## I. Background

- A. Most people probably found it more difficult to write the background than the DD because ICOA gives you a structure/outline and a starting point for your efforts. It's much more difficult to get started when you have no structure, right?

Now that you have written the response to the Office Action, would you have written your Background differently?

- B. Especially post *KSR*, the Background can be taken as admitted prior art. Most people did well in not disclosing their invention in the Background, but remember that we no longer want to recite “long-felt needs” or other “motivational” statements in the Background because Examiners are using them against us.

“Providing power to an electronic device based on the amount of exercise” is too much for the Background (more below). Reciting

- C. The Background is a great opportunity for you to do some subtle advocacy for your invention. You can view it as kind of a pre-emptive response to an Office Action. For example, you disclose several prior art references in your IDS – the odds that the Examiner will cite those references against you go way, way down if you do a good job distinguishing from them in the Background. Some people go so far as to use the “1) reference teaches, 2) reference does not teach” structure that we saw for responses to 102 rejections.

- D. Did you disclose all of the prior art references that you knew? Both the patents and publications and the websites? More importantly, did you use the Background as your opportunity to point out the shortcomings of the prior art so that the Examiner would be able to appreciate your invention better as he reads the Detailed Description? Be aware that the Examiner typically believes what you write in the background with regard to the PA

and doubts your later responses to office actions. Disclosing the PA references can help you more clearly point out to the Examiner what is missing in the prior art.

- E. When we talk about the prior art, give the Examiner some specific “hard” difference to focus on. By “hard” we mean something that the Examiner can focus on as a potential claim limitation that differentiates you from the prior art. The fact that a specific feature is not there is a hard difference. Just stating that the prior art is not “convenient” or “satisfactory” or any other “value word” is not a hard difference that appeals to the Examiner or buys you distinction for your claims. Focus on elements that you can differentiate in your claims.
- F. As you are writing the background, think about what you are writing. How does it advance the ball? How does it help the Examiner understand your differences from the prior art? How does it create a clear differentiation in the mind of the Examiner between my invention and the prior art? Are you discussing specific differences that are meaningful to your claims?
- G. Don’t just point out something in the prior art and then move on. When you are pointing something out, you are doing so for a reason. STATE THE REASON. Why is the fact that you have highlighted important? What should the Examiner remember for later when he is looking at the claims with regard to what you just pointed out? Write out the conclusion that necessarily follows from the facts that you have just related. Don’t assume that the user will make the same decision with regard to the facts that you did. Be specific. Be clear.  
EXAMPLE: “Prior art system is heavy and inconvenient”  
Why does this matter? Emphasize the technological reason underlying this statement to provide a “hard” limitation for the Examiner. For example, the prior art may be heavy because they are including a highly sensitive and multi-directional responsive sensor that consumes a lot of power. Also, they are in constant contact with a base station which

requires that they have to carry a wireless communication system and even more batteries to power the communication system.

H. Remember that the Background is linked to your claims. Specifically, you are pointing out that the prior art does not teach what will be in your claims. You are focusing on the absence in the prior art of a specific feature that will later be appearing in your claims.

I. Most people need better descriptions of the prior art's limitations in order to make their advocacy more effective

Not quite the level of disclosure of the DD, but we want it to be clear to the Examiner what is going on

That is, the Examiner needs to be clear about the SPECIFIC differences between your device and PA

- 1) What PA does
- 2) What PA does not do
- 3) Why that matters

## II. Detailed Description

A. Validation – This is your last opportunity to point out the differences between your invention and the prior art that you will have before the Examiner looks at your claims. Make it powerfully persuasive. Link back to the Background. Be specific about limitations that are in your embodiments, but not in the prior art.

1. We need a positive recitation of the structure or function, not just a blanket statement that “thus the present system is more convenient”
2. Sometimes this is hard for people to write because they feel like they just described everything in the previous 30 pages, why should they summarize it here?- Pretend that the Examiner did not read the spec (or did not read it thoroughly) and is just skipping to the end. Not that they would ever do that, right? No, of course not.

### III. General comments

- A. Get rid of the woulda-shoulda-coulda
- B. Don't use words that are legal terms - consist, enable, obvious
- C. Don't use Latin or legal terms – stick with English  
No via, supra, infra, e.g
- D. Redeemer is a bad term – it was bad from the start, but got stuck in your head. This is an example of what we attempt to avoid by not reading the Examiner's comments.

Here's one way to help you tell if a term is bad. What if the invention disclosure called it "the Activator" instead of "the Redeemer"? Would you ever have chosen the term "Redeemer" to describe the device? No, you would not. You can perform this same exercise with other words.

- E. Cross-Reference to Related Applications – you don't have one, so you can dump it if you want. It's not wrong if you include it, but it will be printed like that in the issued patent.
- F. If I strike-through something in your application, I am calling your attention to it.

### IV. Field of the Invention

- A. Lots of people tried to turn the Field of the Invention Statement into a Summary statement. However, this is still the Background and we don't want to disclose the invention.

- B. Why have a Field statement? Help classify patent.

Review Classifications and sub-classes

<http://www.uspto.gov/go/classification/selectnumwithtitle.htm>

How about class 702/160?

If we are aiming there, maybe we would say something like:

"The present invention generally relates to a system for processing data received from a pedometer."

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Select US Classes by Number with Title

**1. Select what you want...**

- Class Schedule (HTML)**                       **Class Schedule (PDF)**  
 **Class Definition (HTML)**                       **Class Definition (PDF)**  
 **US-to-IPC8 Concordance (HTML)**       **US-to-IPC8 Concordance (PDF)**  
 **US-to-Locarno Concordance**

**2. Select a class or Search within this page with your browser.**

	Class Number and Title
<input type="button" value="Go"/>	002 Apparel
<input type="button" value="Go"/>	004 Baths, closets, sinks, and spittoons
<input type="button" value="Go"/>	005 Beds
<input type="button" value="Go"/>	007 Compound tools
<input type="button" value="Go"/>	008 Bleaching and dyeing; fluid treatment and chemical modification of textiles and fibers
<input type="button" value="Go"/>	012 Boot and shoe making
<input type="button" value="Go"/>	014 Bridges
<input type="button" value="Go"/>	015 Brushing, scrubbing, and general cleaning
<input type="button" value="Go"/>	016 Miscellaneous hardware (e.g., bushing, carpet fastener, caster, door closer, panel hanger, attachable or adjunct handle, hinge, window sash balance, etc.)
<input type="button" value="Go"/>	019 Textiles: fiber preparation
<input type="button" value="Go"/>	023 Chemistry: physical processes
<input type="button" value="Go"/>	024 Buckles, buttons, clasps, etc.
<input type="button" value="Go"/>	026 Textiles: cloth finishing
<input type="button" value="Go"/>	027 Undertaking
<input type="button" value="Go"/>	028 Textiles: manufacturing
<input type="button" value="Go"/>	029 Metal working
<input type="button" value="Go"/>	030 Cutlery
<input type="button" value="Go"/>	033 Geometrical instruments
<input type="button" value="Go"/>	034 Drying and gas or vapor contact with solids



- 036 Boots, shoes, and leggings
- 037 Excavating
- 038 Textiles: ironing or smoothing
- 040 Card, picture, or sign exhibiting
- 042 Firearms
- 043 Fishing, trapping, and vermin destroying
- 044 Fuel and related compositions
- 047 Plant husbandry
- 048 Gas: heating and illuminating
- 049 Movable or removable closures
- Class Number and Title
- 051 Abrasive tool making process, material, or composition
- 052 Static structures (e.g., buildings)
- 053 Package making
- 054 Harness for working animal
- 055 Gas separation
- 056 Harvesters
- 057 Textiles: spinning, twisting, and twining
- 059 Chain, staple, and horseshoe making
- 060 Power plants
- 062 Refrigeration
- 063 Jewelry
- 065 Glass manufacturing
- 066 Textiles: knitting
- 068 Textiles: fluid treating apparatus
- 069 Leather manufactures
- 070 Locks
- 071 Chemistry: fertilizers
- 072 Metal deforming
- 073 Measuring and testing
- 074 Machine element or mechanism
- 075 Specialized metallurgical processes, compositions for use therein, consolidated metal powder compositions, and loose metal particulate mixtures
- 076 Metal tools and implements, making



<a href="#">Go</a>	079 Button making
<a href="#">Go</a>	081 Tools
<a href="#">Go</a>	082 Turning
<a href="#">Go</a>	083 Cutting
<a href="#">Go</a>	084 Music
<a href="#">Go</a>	086 Ammunition and explosive-charge making
<a href="#">Go</a>	087 Textiles: braiding, netting, and lace making
	Class Number and Title
<a href="#">Go</a>	089 Ordnance
<a href="#">Go</a>	091 Motors: expansible chamber type
<a href="#">Go</a>	092 Expansible chamber devices
<a href="#">Go</a>	095 Gas separation: processes
<a href="#">Go</a>	096 Gas separation: apparatus
<a href="#">Go</a>	099 Foods and beverages: apparatus
<a href="#">Go</a>	100 Presses
<a href="#">Go</a>	101 Printing
<a href="#">Go</a>	102 Ammunition and explosives
<a href="#">Go</a>	104 Railways
<a href="#">Go</a>	105 Railway rolling stock
<a href="#">Go</a>	106 Compositions: coating or plastic
<a href="#">Go</a>	108 Horizontally supported planar surfaces
<a href="#">Go</a>	109 Safes, bank protection, or a related device
<a href="#">Go</a>	110 Furnaces
<a href="#">Go</a>	111 Planting
<a href="#">Go</a>	112 Sewing
<a href="#">Go</a>	114 Ships
<a href="#">Go</a>	116 Signals and indicators
<a href="#">Go</a>	117 Single-crystal, oriented-crystal, and epitaxy growth processes; non-coating apparatus therefor
<a href="#">Go</a>	118 Coating apparatus
<a href="#">Go</a>	119 Animal husbandry
<a href="#">Go</a>	122 Liquid heaters and vaporizers
<a href="#">Go</a>	123 Internal-combustion engines
<a href="#">Go</a>	124 Mechanical guns and projectors

③

- 125 Stone working
- 126 Stoves and furnaces
- 127 Sugar, starch, and carbohydrates
- 128 Surgery
- Class Number and Title
- 131 Tobacco
- 132 Toilet
- 134 Cleaning and liquid contact with solids
- 135 Tent, canopy, umbrella, or cane
- 136 Batteries: thermoelectric and photoelectric
- 137 Fluid handling
- 138 Pipes and tubular conduits
- 139 Textiles: weaving
- 140 Wireworking
- 141 Fluent material handling, with receiver or receiver coating means
- 142 Wood turning
- 144 Woodworking
- 147 Coopering
- 148 Metal treatment
- 149 Explosive and thermic compositions or charges
- 150 Purses, wallets, and protective covers
- 152 Resilient tires and wheels
- 156 Adhesive bonding and miscellaneous chemical manufacture
- 157 Wheelwright machines
- 159 Concentrating evaporators
- 160 Flexible or portable closure, partition, or panel
- 162 Paper making and fiber liberation
- 163 Needle and pin making
- 164 Metal founding
- 165 Heat exchange
- 166 Wells
- 168 Farriery
- 169 Fire extinguishers





Go	171 Unearthing plants or buried objects
	Class Number and Title
Go	172 Earth working
Go	173 Tool driving or impacting
Go	174 Electricity: conductors and insulators
Go	175 Boring or penetrating the earth
Go	177 Weighing scales
Go	178 Telegraphy
Go	180 Motor vehicles
Go	181 Acoustics
Go	182 Fire escape, ladder, or scaffold
Go	184 Lubrication
Go	185 Motors: spring, weight, or animal powered
Go	186 Merchandising
Go	187 Elevator, industrial lift truck, or stationary lift for vehicle
Go	188 Brakes
Go	190 Trunks and hand-carried luggage
Go	191 Electricity: transmission to vehicles
Go	192 Clutches and power-stop control
Go	193 Conveyors, chutes, skids, guides, and ways
Go	194 Check-actuated control mechanisms
Go	196 Mineral oils: apparatus
Go	198 Conveyors: power-driven
Go	199 Type casting
Go	200 Electricity: circuit makers and breakers
Go	201 Distillation: processes, thermolytic
Go	202 Distillation: apparatus
Go	203 Distillation: processes, separatory
Go	204 Chemistry: electrical and wave energy
Go	205 Electrolysis: processes, compositions used therein, and methods of preparing the compositions
Go	206 Special receptacle or package
	Class Number and Title
Go	208 Mineral oils: processes and products

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- 209 Classifying, separating, and assorting solids
- 210 Liquid purification or separation
- 211 Supports: racks
- 212 Traversing hoists
- 213 Railway draft appliances
- 215 Bottles and jars
- 216 Etching a substrate: processes
- 217 Wooden receptacles
- 218 High-voltage switches with arc preventing or extinguishing devices
- 219 Electric heating
- 220 Receptacles
- 221 Article dispensing
- 222 Dispensing
- 223 Apparel apparatus
- 224 Package and article carriers
- 225 Severing by tearing or breaking
- 226 Advancing material of indeterminate length
- 227 Elongated-member-driving apparatus
- 228 Metal fusion bonding
- 229 Envelopes, wrappers, and paperboard boxes
- 231 Whips and whip apparatus
- 232 Deposit and collection receptacles
- 234 Selective cutting (e.g., punching)
- 235 Registers
- 236 Automatic temperature and humidity regulation
- 237 Heating systems
- 238 Railways: surface track
- 239 Fluid sprinkling, spraying, and diffusing
- Class Number and Title
- 241 Solid material comminution or disintegration
- 242 Winding, tensioning, or guiding
- 244 Aeronautics and astronautics
- 245 Wire fabrics and structure



- [Go](#) 246 Railway switches and signals
- [Go](#) 248 Supports
- [Go](#) 249 Static molds
- [Go](#) 250 Radiant energy
- [Go](#) 251 Valves and valve actuation
- [Go](#) 252 Compositions
- [Go](#) 254 Implements or apparatus for applying pushing or pulling force
- [Go](#) 256 Fences
- [Go](#) 257 Active solid-state devices (e.g., transistors, solid-state diodes)
- [Go](#) 258 Railway mail delivery
- [Go](#) 260 Chemistry of carbon compounds
- [Go](#) 261 Gas and liquid contact apparatus
- [Go](#) 264 Plastic and nonmetallic article shaping or treating: processes
- [Go](#) 266 Metallurgical apparatus
- [Go](#) 267 Spring devices
- [Go](#) 269 Work holders
- [Go](#) 270 Sheet-material associating
- [Go](#) 271 Sheet feeding or delivering
- [Go](#) 273 Amusement devices: games ?
- [Go](#) 276 Typesetting
- [Go](#) 277 Seal for a joint or juncture
- [Go](#) 278 Land vehicles: animal draft appliances
- [Go](#) 279 Chucks or sockets
- [Go](#) 280 Land vehicles
- [Go](#) 281 Books, strips, and leaves
- Class Number and Title
- [Go](#) 283 Printed matter
- [Go](#) 285 Pipe joints or couplings
- [Go](#) 289 Knots and knot tying
- [Go](#) 290 Prime-mover dynamo plants
- [Go](#) 291 Track sanders
- [Go](#) 292 Closure fasteners
- [Go](#) 293 Vehicle fenders

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- [Go](#) 294 Handling: hand and hoist-line implements
- [Go](#) 295 Railway wheels and axles
- [Go](#) 296 Land vehicles: bodies and tops
- [Go](#) 297 Chairs and seats
- [Go](#) 298 Land vehicles: dumping
- [Go](#) 299 Mining or in situ disintegration of hard material
- [Go](#) 300 Brush, broom, and mop making
- [Go](#) 301 Land vehicles: wheels and axles
- [Go](#) 303 Fluid-pressure and analogous brake systems
- [Go](#) 305 Wheel substitutes for land vehicles
- [Go](#) 307 Electrical transmission or interconnection systems
- [Go](#) 310 Electrical generator or motor structure
- [Go](#) 312 Supports: cabinet structure
- [Go](#) 313 Electric lamp and discharge devices
- [Go](#) 314 Electric lamp and discharge devices: consumable electrodes
- [Go](#) 315 Electric lamp and discharge devices: systems
- [Go](#) 318 Electricity: motive power systems
- [Go](#) 320 Electricity: battery or capacitor charging or discharging
- [Go](#) 322 Electricity: single generator systems
- [Go](#) 323 Electricity: power supply or regulation systems
- [Go](#) 324 Electricity: measuring and testing
- [Go](#) 326 Electronic digital logic circuitry
- Class Number and Title
- [Go](#) 327 Miscellaneous active electrical nonlinear devices, circuits, and systems
- [Go](#) 329 Demodulators
- [Go](#) 330 Amplifiers
- [Go](#) 331 Oscillators
- [Go](#) 332 Modulators
- [Go](#) 333 Wave transmission lines and networks
- [Go](#) 334 Tuners
- [Go](#) 335 Electricity: magnetically operated switches, magnets, and electromagnets
- [Go](#) 336 Inductor devices
- [Go](#) 337 Electricity: electrothermally or thermally actuated switches



Go	338 Electrical resistors	2
Go	340 Communications: electrical	
Go	341 Coded data generation or conversion	
Go	342 Communications: directive radio wave systems and devices (e.g., radar, radio navigation)	
Go	343 Communications: radio wave antennas	
Go	345 Computer graphics processing and selective visual display systems	
Go	346 Recorders	?
Go	347 Incremental printing of symbolic information	
Go	348 Television	
Go	349 Liquid crystal cells, elements and systems	
Go	351 Optics: eye examining, vision testing and correcting	
Go	352 Optics: motion pictures	
Go	353 Optics: image projectors	
Go	355 Photocopying	
Go	356 Optics: measuring and testing	
Go	358 Facsimile and static presentation processing	
Go	359 Optical: systems and elements	
Go	360 Dynamic magnetic information storage or retrieval	
Go	361 Electricity: electrical systems and devices	
	Class Number and Title	
Go	362 Illumination	
Go	363 Electric power conversion systems	?
Go	365 Static information storage and retrieval	
Go	366 Agitating	
Go	367 Communications, electrical: acoustic wave systems and devices	
Go	368 Horology: time measuring systems or devices	
Go	369 Dynamic information storage or retrieval	2
Go	370 Multiplex communications	
Go	372 Coherent light generators	
Go	373 Industrial electric heating furnaces	
Go	374 Thermal measuring and testing	
Go	375 Pulse or digital communications	
Go	376 Induced nuclear reactions: processes, systems, and elements	

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- [Go](#) 377 Electrical pulse counters, pulse dividers, or shift registers: circuits and systems
- [Go](#) 378 X-ray or gamma ray systems or devices
- [Go](#) 379 Telephonic communications
- [Go](#) 380 Cryptography
- [Go](#) 381 Electrical audio signal processing systems and devices
- [Go](#) 382 Image analysis
- [Go](#) 383 Flexible bags
- [Go](#) 384 Bearings
- [Go](#) 385 Optical waveguides
- [Go](#) 386 Television signal processing for dynamic recording or reproducing
- [Go](#) 388 Electricity: motor control systems
- [Go](#) 392 Electric resistance heating devices
- [Go](#) 396 Photography
- [Go](#) 398 Optical communications
- [Go](#) 399 Electrophotography
- [Go](#) 400 Typewriting machines
- Class Number and Title
- [Go](#) 401 Coating implements with material supply
- [Go](#) 402 Binder device releasably engaging aperture or notch of sheet
- [Go](#) 403 Joints and connections
- [Go](#) 404 Road structure, process, or apparatus
- [Go](#) 405 Hydraulic and earth engineering
- [Go](#) 406 Conveyors: fluid current
- [Go](#) 407 Cutters, for shaping
- [Go](#) 408 Cutting by use of rotating axially moving tool
- [Go](#) 409 Gear cutting, milling, or planing
- [Go](#) 410 Freight accommodation on freight carrier
- [Go](#) 411 Expanded, threaded, driven, headed, tool-deformed, or locked-threaded fastener
- [Go](#) 412 Bookbinding: process and apparatus
- [Go](#) 413 Sheet metal container making
- [Go](#) 414 Material or article handling
- [Go](#) 415 Rotary kinetic fluid motors or pumps



- [Go](#) 416 Fluid reaction surfaces (i.e., impellers)
- [Go](#) 417 Pumps
- [Go](#) 418 Rotary expansible chamber devices
- [Go](#) 419 Powder metallurgy processes
- [Go](#) 420 Alloys or metallic compositions
- [Go](#) 422 Chemical apparatus and process disinfecting, deodorizing, preserving, or sterilizing
- [Go](#) 423 Chemistry of inorganic compounds
- [Go](#) 424 Drug, bio-affecting and body treating compositions
- [Go](#) 425 Plastic article or earthenware shaping or treating: apparatus
- [Go](#) 426 Food or edible material: processes, compositions, and products
- [Go](#) 427 Coating processes
- [Go](#) 428 Stock material or miscellaneous articles
- [Go](#) 429 Chemistry: electrical current producing apparatus, product, and process
- [Go](#) 430 Radiation imagery chemistry: process, composition, or product thereof

## Class Number and Title

- [Go](#) 431 Combustion
- [Go](#) 432 Heating
- [Go](#) 433 Dentistry
- [Go](#) 434 Education and demonstration
- [Go](#) 435 Chemistry: molecular biology and microbiology
- [Go](#) 436 Chemistry: analytical and immunological testing
- [Go](#) 438 Semiconductor device manufacturing: process
- [Go](#) 439 Electrical connectors
- [Go](#) 440 Marine propulsion
- [Go](#) 441 Buoys, rafts, and aquatic devices
- [Go](#) 442 Fabric (woven, knitted, or nonwoven textile or cloth, etc.)
- [Go](#) 445 Electric lamp or space discharge component or device manufacturing
- [Go](#) 446 Amusement devices: toys
- [Go](#) 449 Bee culture
- [Go](#) 450 Foundation garments
- [Go](#) 451 Abrading
- [Go](#) 452 Butchering
- [Go](#) 453 Coin handling



- 454 Ventilation
- 455 Telecommunications
- 460 Crop threshing or separating
- 462 Books, strips, and leaves for manifolding
- 463 Amusement devices: games
- 464 Rotary shafts, gudgeons, housings, and flexible couplings for rotary shafts
- 470 Threaded, headed fastener, or washer making: process and apparatus
- 472 Amusement devices
- 473 Games using tangible projectile
- 474 Endless belt power transmission systems or components
- 475 Planetary gear transmission systems or components
- Class Number and Title
- 476 Friction gear transmission systems or components
- 477 Interrelated power delivery controls, including engine control
- 482 Exercise devices
- 483 Tool changing
- 492 Roll or roller
- 493 Manufacturing container or tube from paper; or other manufacturing from a sheet or web
- 494 Imperforate bowl: centrifugal separators
- 501 Compositions: ceramic
- 502 Catalyst, solid sorbent, or support therefor: product or process of making
- 503 Record receiver having plural interactive leaves or a colorless color former, method of use, or developer therefor
- 504 Plant protecting and regulating compositions
- 505 Superconductor technology: apparatus, material, process
- 506 Combinatorial chemistry technology: method, library, apparatus
- 507 Earth boring, well treating, and oil field chemistry
- 508 Solid anti-friction devices, materials therefor, lubricant or separant compositions for moving solid surfaces, and miscellaneous mineral oil compositions
- 510 Cleaning compositions for solid surfaces, auxiliary compositions therefor, or processes of preparing the compositions
- 512 Perfume compositions
- 514 Drug, bio-affecting and body treating compositions
- 516 Colloid systems and wetting agents; subcombinations thereof; processes of

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- 518 Chemistry: fischer-tropsch processes; or purification or recovery of products thereof
- 520 Synthetic resins or natural rubbers -- part of the class 520 series
- 521 Synthetic resins or natural rubbers -- part of the class 520 series
- 522 Synthetic resins or natural rubbers -- part of the class 520 series
- 523 Synthetic resins or natural rubbers -- part of the class 520 series
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- 527 Synthetic resins or natural rubbers -- part of the class 520 series
- 528 Synthetic resins or natural rubbers -- part of the class 520 series

## Class Number and Title

- 530 Chemistry: natural resins or derivatives; peptides or proteins; lignins or reaction products thereof
- 532 Organic compounds -- part of the class 532-570 series
- 534 Organic compounds -- part of the class 532-570 series
- 536 Organic compounds -- part of the class 532-570 series
- 540 Organic compounds -- part of the class 532-570 series
- 544 Organic compounds -- part of the class 532-570 series
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- 562 Organic compounds -- part of the class 532-570 series
- 564 Organic compounds -- part of the class 532-570 series
- 568 Organic compounds -- part of the class 532-570 series
- 570 Organic compounds -- part of the class 532-570 series
- 585 Chemistry of hydrocarbon compounds
- 588 Hazardous or toxic waste destruction or containment
- 600 Surgery



- Go 601 Surgery: kinesitherapy
- Go 602 Surgery: splint, brace, or bandage
- Go 604 Surgery
- Go 606 Surgery
- Go 607 Surgery: light, thermal, and electrical application
- Go 623 Prosthesis (i.e., artificial body members), parts thereof, or aids and accessories therefor
- Go 700 Data processing: generic control systems or specific applications
- Go 701 Data processing: vehicles, navigation, and relative location
- Class Number and Title
- Go 702 Data processing: measuring, calibrating, or testing
- Go 703 Data processing: structural design, modeling, simulation, and emulation
- Go 704 Data processing: speech signal processing, linguistics, language translation, and audio compression/decompression
- Go 705 Data processing: financial, business practice, management, or cost/price determination
- Go 706 Data processing: artificial intelligence
- Go 707 Data processing: database and file management or data structures
- Go 708 Electrical computers: arithmetic processing and calculating
- Go 709 Electrical computers and digital processing systems: multicomputer data transferring
- Go 710 Electrical computers and digital data processing systems: input/output
- Go 711 Electrical computers and digital processing systems: memory
- Go 712 Electrical computers and digital processing systems: processing architectures and instruction processing (e.g., processors)
- Go 713 Electrical computers and digital processing systems: support
- Go 714 Error detection/correction and fault detection/recovery
- Go 715 Data processing: presentation processing of document, operator interface processing, and screen saver display processing
- Go 716 Data processing: design and analysis of circuit or semiconductor mask
- Go 717 Data processing: software development, installation, and management
- Go 718 Electrical computers and digital processing systems: virtual machine task or process management or task management/control
- Go 719 Electrical computers and digital processing systems: interprogram communication or interprocess communication (ipc)
- Go 720 Dynamic optical information storage or retrieval
- Go 725 Interactive video distribution systems







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- 726 Information security
- 800 Multicellular living organisms and unmodified parts thereof and related processes
- 850 Scanning-probe techniques or apparatus; applications of scanning-probe techniques, e.g., scanning probe microscopy [spm]
- 901 Robots
- 902 Electronic funds transfer
- 903 Hybrid electric vehicles (hevs)
- 930 Peptide or protein sequence
- 968 Horology
- 976 Nuclear technology
- Class Number and Title
- 977 Nanotechnology
- 984 Musical instruments
- 987 Organic compounds containing a bi, sb, as, or p atom or containing a metal atom of the 6th to 8th group of the periodic system
- D01 Edible products
- D02 Apparel and haberdashery
- D03 Travel goods and personal belongings
- D04 Brushware
- D05 Textile or paper yard goods; sheet material
- D06 Furnishings
- D07 Equipment for preparing or serving food or drink not elsewhere specified
- D08 Tools and hardware
- D09 Packages and containers for goods
- D10 Measuring, testing, or signalling instruments
- D11 Jewelry, symbolic insignia, and ornaments
- D12 Transportation
- D13 Equipment for production, distribution, or transformation of energy
- D14 Recording, communication, or information retrieval equipment
- D15 Machines not elsewhere specified
- D16 Photography and optical equipment
- D17 Musical instruments
- D18 Printing and office machinery
- D19 Office supplies; artists` and teachers` materials

↓ DJSZONS

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<a href="#">Go</a>	D20 Sales and advertising equipment
<a href="#">Go</a>	D21 Games, toys, and sports goods
<a href="#">Go</a>	D22 Arms, pyrotechnics, hunting and fishing equipment
<a href="#">Go</a>	D23 Environmental heating and cooling; fluid handling and sanitary equipment
<a href="#">Go</a>	D24 Medical and laboratory equipment
<a href="#">Go</a>	D25 Building units and construction elements
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	Class Number and Title
<a href="#">Go</a>	D27 Tobacco and smokers' supplies
<a href="#">Go</a>	D28 Cosmetic products and toilet articles
<a href="#">Go</a>	D29 Equipment for safety, protection, and rescue
<a href="#">Go</a>	D30 Animal husbandry
<a href="#">Go</a>	D32 Washing, cleaning, or drying machine
<a href="#">Go</a>	D34 Material or article handling equipment
<a href="#">Go</a>	D99 Miscellaneous
<a href="#">Go</a>	PLT Plants

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**Class 702 DATA PROCESSING: MEASURING, CALIBRATING, OR TESTING**

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












































































- 1                    **MEASUREMENT SYSTEM IN A SPECIFIC ENVIRONMENT**
- 2                    · Earth science
- 3                    ·· Weather
- 4                    ··· Lightning
- 5                    ·· Topography (e.g., land mapping)
- 6                    ·· Well logging or borehole study
- 7                    ··· By induction or resistivity logging tool
- 8                    ··· By radiation (e.g., nuclear, gamma, X-ray)
- 9                    ··· Drilling
- 10                  ··· Dipmeter
- 11                  ··· Formation characteristic
- 12                  ···· Fluid flow investigation
- 13                  ····· Hydrocarbon prospecting
- 14                  ·· Seismology
- 15                  ··· Earthquake or volcanic activity
- 16                  ··· Specific display system (e.g., mapping, profiling)
- 17                  ··· Filtering or noise reduction/removal
- 18                  ··· Velocity of seismic wave
- 19                  · Biological or biochemical
- 20                  ·· Gene sequence determination
- 21                  ·· Cell count or shape or size analysis (e.g., blood cell)
- 22                  · Chemical analysis
- 23                  ·· Quantitative determination (e.g., mass, concentration, density)
- 24                  ··· Gaseous mixture (e.g., solid-gas, liquid-gas, gas-gas)
- 25                  ··· Liquid mixture (e.g., solid-liquid, liquid-liquid)
- 26                  ··· By particle count
- 27                  ·· Molecular structure or composition determination
- 28                  ··· Using radiant energy
- 29                  ·· Particle size determination
- 30                  ·· Chemical property analysis
- 31                  ·· Specific operation control system
- 32                  ·· Specific signal data processing
- 33                  · Mechanical measurement system
- 34                  ·· Wear or deterioration evaluation
- 35                  ·· Flaw or defect detection
- 36                  ··· Location
- 38                  ··· Electromagnetic (e.g., eddy current)

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-	A	P	39	...	Sound energy (e.g., ultrasonic)
-	A	P	40	...	Radiant energy (e.g., X-ray, infrared, laser)
-	A	P	41	..	Force or torque measurement
-	A	P	42	...	Stress or strain measurement
-	A	P	43	....	Torsional, shear, tensile, or compression
-	A	P	44	...	Mechanical work or power measurement
-	A	P	45	..	Flow metering
-	A	P	46	...	Count or pulse
-	A	P	47	...	Pressure, resistive, or capacitive sensor
-	A	P	48	...	Acoustic
-	A	P	49	...	Radiant energy
-	A	P	50	..	Fluid measurement (e.g., mass, pressure, viscosity)
-	A	P	51	...	Leak detecting
-	A	P	52	...	Capacitive sensor
-	A	P	53	...	Resistive sensor
-	A	P	54	...	Acoustic or vibration sensor
-	A	P	55	...	Liquid level or volume determination
-	A	P	56	..	Vibration detection
-	A	P	57	·	Electrical signal parameter measurement system
-	A	P	58	..	For electrical fault detection
-	A	P	59	...	Fault location
-	A	P	60	..	Power parameter
-	A	P	61	...	Power logging (e.g., metering)
-	A	P	62	....	Including communication means
-	A	P	63	...	Battery monitoring
-	A	P	64	..	Voltage or current
-	A	P	65	...	Including related electrical parameter
-	A	P	66	..	Waveform analysis
-	A	P	67	...	Display of waveform
-	A	P	68	....	Having specified user interface (e.g., marker, menu)
-	A	P	69	...	Signal quality (e.g., timing jitter, distortion, signal-to-noise ratio)
-	A	P	70	...	Waveform extraction
-	A	P	71	...	Waveform-to-waveform comparison
-	A	P	72	....	Phase comparison
-	A	P	73	....	Identification of waveform
-	A	P	74	....	Signal-in-signal determination
-	A	P	75	...	Frequency
-	A	P	76	....	Frequency spectrum
-	A	P	77	....	Using Fourier method
-	A	P	78	....	By count (e.g., pulse)
-	A	P	79	..	Time-related parameter (e.g., pulse-width, period, delay, etc.)
-	A	P	80	..	Specified memory location generation for storage
-	A	P	81	·	Quality evaluation
-	A	P	82	..	Having judging means (e.g., accept/reject)
-	A	P	83	..	Sampling Inspection Plan
-	A	P	84	..	Quality control
-	A	P	85	<b>CALIBRATION OR CORRECTION SYSTEM</b>	
-	A	P	86	·	Linearization of measurement
-	A	P	87	·	Zeroing (e.g., null)
-	A	P	88	·	Zero-full scaling























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-	A	P	89	· Timing (e.g., delay, synchronization)
-	A	P	90	· Error due to component compatibility
-	A	P	91	.. Having interchangeable sensors or probes
-	A	P	92	· Direction (e.g., compass)
-	A	P	93	.. By another sensor
-	A	P	94	· Position measurement
-	A	P	95	.. Coordinate positioning
-	A	P	96	· Speed
-	A	P	97	· Length, distance, or thickness
-	A	P	98	· Pressure
-	A	P	99	· Temperature
-	A	P	100	· Fluid or fluid flow measurement
-	A	P	101	· Weight
-	A	P	102	.. Tare weight adjusted
-	A	P	103	· Acoustic
-	A	P	104	· Sensor or transducer
-	A	P	105	· For mechanical system
-	A	P	106	· Signal frequency or phase correction
-	A	P	107	· Circuit tuning (e.g., potentiometer, amplifier)
-	A	P	108	<b>TESTING SYSTEM</b>
-	A	P	109	· For transfer function determination
-	A	P	110	.. Binary signal stimulus (e.g., pulse)
-	A	P	111	.. Noise signal stimulus (e.g., white noise)
-	A	P	112	.. Sinusoidal signal stimulus
-	A	P	113	· Of mechanical system
-	A	P	114	.. Pneumatic or hydraulic system
-	A	P	115	.. Electromechanical or magnetic system
-	A	P	116	· Of sensing device
-	A	P	117	· Of circuit
-	A	P	118	.. Testing multiple circuits
-	A	P	119	.. Including program initialization (e.g., program loading) or code selection (e.g., program creation)
-	A	P	120	.. Including input/output or test mode selection means
-	A	P	121	· Including multiple test instruments
-	A	P	122	· Including specific communication means
-	A	P	123	· Including program set up
-	A	P	124	· Signal generation or waveform shaping
-	A	P	125	.. Timing signal
-	A	P	126	.. Signal conversion
-	A	P	127	<b>MEASUREMENT SYSTEM</b>
-	A	P	128	· Article count or size distribution
-	A	P	129	.. Quantitative determination by weight
-	A	P	130	· Temperature measuring system
-	A	P	131	.. Body temperature
-	A	P	132	.. Thermal protection
-	A	P	133	.. By resistive means
-	A	P	134	.. By radiant energy
-	A	P	135	... Infrared
-	A	P	136	.. Thermal related property
-	A	P	137	· Density

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- Pressure
  - Exerted on or by a living body
  - Within an enclosure
  - Accelerometer
  - Speed
  - By radar or sonar
  - Of aircraft
  - Rotational speed
  - Averaging performed
  - Specific mathematical operation performed
  - For wheel speed
  - By distance and time measurement
  - Orientation or position
  - Angular position
  - 3D position
  - 3D orientation
  - Inclinator
  - Dimensional determination
  - Area or volume
  - Radius or diameter
  - Linear distance or length
  - By reflected signal (e.g., ultrasonic, light, laser)
  - Pedometer
  - Electronic ruler
  - Micrometer
  - By rotary encoding means
  - Electronic tape measure
  - Odometer
  - Height or depth
  - Contouring
  - By probe (e.g., contact)
  - Center of gravity
  - Thickness or width
  - By ultrasonic
  - By radiant energy (e.g., X-ray, light)
  - Weight
  - Payload
  - Of moving article
  - Time duration or rate
  - Due time monitoring (e.g., medication clock, maintenance interval)
  - Timekeeping (e.g., clock, calendar, stopwatch)
  - Statistical measurement
  - Histogram distribution
  - Probability determination
  - Performance or efficiency evaluation
  - Diagnostic analysis
  - Maintenance
  - Cause or fault identification
  - Computer and peripheral benchmarking
  - History logging or time stamping

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-   188      · Remote supervisory monitoring
-   189      · Measured signal processing
-   190      · Signal extraction or separation (e.g., filtering)
-   191      ··· For noise removal or suppression
-   193      ···· By threshold comparison
-   194      ···· By mathematical attenuation (e.g., weighting, averaging)
-   195      ····· Subtracting noise component
-   196      ··· Using matrix operation
-   197      ····· Having multiple filtering stages
-   198      ··· Measurement conversion processing (e.g., true-to-RMS value)
-   199      ··· Averaging

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**APPLICATIONS (364/400)**

- FOR100      · Earth sciences (e.g., weather) (364/420)
- FOR101      ··· Seismology (364/421)
- FOR102      ··· Well logging (364/422)
- FOR103      · Electrical/electronic engineering (364/480)
- FOR104      ··· Measuring or testing (364/481)
- FOR105      ··· Impedance (364/482)
- FOR106      ··· Voltage, current, or power (364/483)
- FOR107      ··· Frequency (364/484)
- FOR108      ····· Frequency spectrum (364/485)
- FOR109      ··· Pulse (364/486)
- FOR110      ··· Waveform (364/487)
- · Electrical/electronic engineering (364/480)
- FOR111      ··· Power generation or distribution (364/492)
- FOR112      ··· Economic dispatching (364/493)
- FOR113      ··· Turbine or generator control (364/494)
- FOR114      ··· With model (364/495)
- FOR115      · Chemical and engineering sciences (364/496)
- FOR116      ··· Chemical analysis (364/497)
- FOR117      ··· Spectrum analysis (composition) (364/498)
- FOR118      ··· Chemical property (364/499)
- FOR119      ··· Chemical process control (364/500)
- FOR120      ··· Distillation (364/501)
- FOR121      ··· Physical mixing or separation (364/502)
- FOR122      ··· Kilns (364/503)
- FOR123      ··· Mechanical and civil engineering (364/505)
- FOR124      ··· Measuring or testing (364/506)
- FOR125      ····· Flaw or defect (364/507)
- FOR126      ····· Stress, strain, or vibration (364/508)
- FOR127      ····· Fluid (364/509)
- FOR128      ····· Fluid flow (364/510)
- FOR129      ····· Power (364/511)

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- FOR130           ·   Physics (364/524)
- FOR131           ·   Optics or photography (364/525)
- FOR132           ·   Color analysis (364/526)
- FOR133           ·   Atomic or nuclear physics (364/527)
- FOR134           ·   **MEASURING, TESTING, OR MONITORING (364/550)**
- FOR135           ·   Measuring and evaluating (e.g., performance) (364/551.01)
- FOR136           ·   Of machine tool (364/551.02)
- FOR137           ·   Quality control determinations (364/552)
- FOR138           ·   Transfer function evaluation (364/553)
- FOR139           ·   Statistical data (e.g., stochastic variable) (364/554)
- FOR140           ·   Particle count, distribution, size (364/555)
- FOR141           ·   For basic measurements (364/556)
- FOR142           ·   Temperature (364/557)
- FOR143           ·   Pressure or density (364/558)
- FOR144           ·   Orientation (364/559)
- FOR145           ·   Dimension (364/560)
- FOR146           ·   Distance (364/561)
- FOR147           ·   Length or height (364/562)
- FOR148           ·   Width or thickness (364/563)
- FOR149           ·   Area or volume (364/564)
- FOR150           ·   Rate of change of dimension (e.g., speed) (364/565)
- FOR151           ·   Acceleration and further derivatives (364/566)
- FOR152           ·   Weight (364/567)
- FOR153           ·   Basis weight (364/568)
- FOR154           ·   Time or time intervals (364/569)
- FOR155           ·   Operations performed (364/570)
- FOR156           ·   Calibration or compensation
- FOR157           ·   Having mathematical operation on initial measurement data (364/571.02)
- FOR158           ·   Including environmental factors (e.g., temperature) (364/571.03)
- FOR159           ·   Including predetermined stored data (364/571.04)
- FOR160           ·   Using difference involving initial measurement data (364/571.05)
- FOR161           ·   Using analog calculating elements (364/571.06)
- FOR162           ·   By table look-up (364/571.07)
- FOR163           ·   Using operator provided data (364/571.08)
- FOR164           ·   Filtering (364/572)
- FOR165           ·   Linearization (364/573)
- FOR166           ·   Noise reduction (364/574)
- FOR167           ·   Averaging (364/575)
- FOR168           ·   Fourier analysis (364/576)
- FOR169           ·   Interpolation/extrapolation (364/577)
- FOR170           ·   With control of testing or measuring apparatus (364/579)
- FOR171           ·   Programmed testing conditions (364/580)
- FOR172           ·   Weighting (364/581)
- FOR173           ·   Normalization (364/582)

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## **CLASS 702, DATA PROCESSING: MEASURING, CALIBRATING, OR TESTING**

- 127     **MEASUREMENT SYSTEM:**
- 155     . **Dimensional determination:**
- 158     .. **Linear distance or length:**
- 160     ... **Pedometer:**

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