



# ELECTRICAL PATENTS INDEX (EPI) MANUAL CODES

2010 REVISION

DWPI MANUAL CODING REVISION SYSTEM



THOMSON REUTERS

Retired/Old/Current	Code	Date Range	Titles >100 chars in length (used for the STN, DII and Wila host lists)	Delphion titles (e.g. sentence format and <100 chars)	Related Items	Scope Notes	Search Terms
<b>Section Q</b>							
Changed	Q13-A26	(2008- )	MOUNTINGS	Mountings		Includes gearbox, differential, drive train mounting arrangements and transmission noise control arrangements (see also Q17-N for noise reduction in general).	Bush, rubber, bracket
Changed	Q14-J	(2006- )	STANDS	Stands		Includes supports and holders for parking cycle.	Stand, rack
New	Q21-A12	(2010- )	BRIDGES AND TUNNELS	Bridges and tunnels	Q21-A15	Includes constructional details of railway bridges and tunnels.	Viaduct
Changed	Q24-B09H	(2006- )	WATERTIGHT ARRANGEMENTS	Watertight arrangements		Includes e.g. watertight doors/bulkheads (see also Q24-A03B and Q24-A01I respectively).	
New	Q24-B99	(2010- )	OTHER SHIP ACCESSORIES	Other ship accessories	Q24-B		
New	Q24-P22	(2010- )	SAILING BOATS	Sailing boats	Q24-P21	Includes all sail powered vessels such as sailing boats and yachts. See Q24-E01E for sail arrangements per se.	
Changed	Q51-H01X	(2006- )	OTHER FUEL SYSTEMS	Other fuel systems		Includes fuel lines, hoses and pipework. Includes fuel heating arrangements. See X22-A02B for electrical fuel heaters. Also includes fuel cooling (see also Q51-G).	
New	Q51-H02	(2010- )	FUEL VAPOUR RECOVERY	Fuel vapour recovery	Q51-H01X	Includes mechanical details of fuel vapour recovery systems. See X22-A02E instead for electrical details of fuel vapour recovery systems.	
New	Q51-J02F	(2010- )	EXHAUST HEAT RECOVERY	Exhaust heat recovery		Includes recovery of heat of vehicle exhaust e.g. for passenger compartment heating. For electrical details of exhaust recovery systems see X22-A17.	
New	Q51-N	(2010- )	NOISE, VIBRATION AND HARSHNESS REDUCTION	Noise, vibration and harshness reduction	Q51-X	See also Q17-N and Q17-E codes for mechanical details of motor vehicle engine noise reduction. See X22-A12 for electrical details of vehicle engine noise and vibration reduction.	
Changed	Q64-A03	(2006- )	BELT FASTENING ARRANGEMENTS	Belt fastening arrangements		Includes turnbuckles, clamps and belt tensioning arrangements (see Q51-E for IC engine timing belt tensioning arrangements).	
<b>S01</b>							
New	S01-J04	(2010- )	POWER SUPPLY	Power supply	S01-H09	Includes power supply devices for all instrumentation systems	Voltage and current source, supply systems
<b>S06</b>							
Retired	S06-A	( -2009)	ELECTROGRAPHY, ELECTROPHOTOGRAPHY, MAGNETOGRAPHY	Electrography, electrophotography, magnetography	S06-D to K	*This code is now discontinued, see S06-D to K. See T04-G and W02-J codes for overlap with printers and facsimile. Includes electrical and non-electrical aspects.	Copier, copy, image, photocopier
Retired	S06-A01	( -2009)	RECORDING MEMBERS	Recording members	S06-E01	*This code is now discontinued, see S06-E01. Drum driving aspects are coded in S06-A03 codes only.	Layer, charge, conducting, image, surface, acceptor, compound, donor, dope
Retired	S06-A01A	( -2009)	PHOTOCONDUCTIVE LAYERS	Photoconductive layers	S06-E01A	*This code is now discontinued, see S06-E01A. Includes all types of charge-generating layers and photosensitive paper. Also cross reference with T04-G04C for photosensitive materials for optical printer.	Hydrazone, photoreceiver, accept
Retired	S06-A01A1	( -2009)	ORGANIC PHOTOCONDUCTIVE LAYERS	Organic photoconductive layers	S06-E01A1	*This code is now discontinued, see S06-E01A1.	Cyclic, polycyclic, heterocyclic, quinone
Retired	S06-A01A2	( -2009)	INORGANIC PHOTOCONDUCTIVE LAYERS	Inorganic photoconductive layers	S06-E01A2	*This code is now discontinued, see S06-E01A2.	Amorphous, silicon, selenium, carry, dope, surface, oxide, polycrystalline
Retired	S06-A01A3	( -2009)	SENSITISERS; BINDING MATERIALS	Sensitisers; binding materials	S06-E01A3	*This code is now discontinued, see S06-E01A3.	Dye, composition, photosensitiser, organic, oxidative potential
Retired	S06-A01A4	(2007-2009)	TREATMENT OF RECORDING MEMBERS	Treatment of recording members	S06-E01A4	*This code is now discontinued, see S06-E01A4. Includes application of a lubricant to the surface of the drum, etc.	
Retired	S06-A01A9	(1986-2009)	OTHER (PHOTOCONDUCTIVE LAYER ASPECTS)	Other (photoconductive layer aspects)	S06-E01A9	*This code is now discontinued, see S06-E01A9. Includes aspects of photoconductive bell/drum not covered by other S06-A01A codes.	
Retired	S06-A01B	( -2009)	CARRIERS; INTERMEDIATE OR COVER LAYERS	Carriers; intermediate or cover layers	S06-E01B	*This code is now discontinued, see S06-E01B.	Sensitive, image, amorphous, coating, drum, base layer, protective layer.
Retired	S06-A01D	(1977-2009)	MANUFACTURE OF RECORDING MEMBERS FOR MAGNETO-, ELECTRO(PHOTO)-GRAPHY	Manufacture of recording members for magneto-, electro(photo)-graphy	S06-E01C	*This code is now discontinued, see S06-E01C. Includes deposition of layers on drum.	Depositing
Retired	S06-A01D1	(1977-2009)	APPARATUS USED FOR MANUFACTURING OF RECORDING MEMBERS FOR MAGNETO-, ELECTRO(PHOTO)-GRAPHY	Apparatus used for manufacturing of recording members for magneto-, electro(photo)-graphy	S06-E01C1	*This code is now discontinued, see S06-E01C1.	
Retired	S06-A01F	(1977-2009)	TEMPERATURE CONTROL	Temperature control	S06-E01D	*This code is now discontinued, see S06-E01D. For warming up photoconductor layers on drum or belt up to normal working operation temperature.	Heater

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Retired	S06-A01X	( -2009)	OTHER (RECORDING MEMBERS)	Other (Recording members)	S06-E01X	*This code is now discontinued, see S06-E01X. Includes thermoplastic and photoelectric layers, paper treatment and manufacture, see S06-C02 codes for lithographic plate manufacture.	Image, electrostatic, surface, copy, substrate, polymer
Retired	S06-A02	( -2009)	SENSITISING	Sensitising	S06-E02	*This code is now discontinued, see S06-E02. Desensitisers for removing residual charge are coded in S06-A10B.	Electrode, surface, electrostatic
Retired	S06-A02A	(1977-2009)	CORONA CHARGER	Corona charger	S06-E02A	*This code is now discontinued, see S06-E02A. Includes all aspects of corona discharge. If corona ring or loop is claimed, then also coded in X12-F04.	Discharge, electrode, grid, scorotron, corotron, dicorotron
Retired	S06-A02B	(1977-2009)	CONTACT CHARGER	Contact charger	S06-E02B	*This code is now discontinued, see S06-E02B.	Roller, brush
Retired	S06-A03	( -2009)	EXPOSING	Exposing	S06-D, S06-E03	*This code is now discontinued, see S06-D/E03. Includes aspects of platen movement, copying station or unit holding original document, lens/mirror systems and drum and belt drive details.	
Retired	S06-A03A	(1983-2009)	FRAME SCANNING	Frame scanning	S06-D01A	*This code is now discontinued, see S06-D01A. Includes slit and full frame scanning.	
Retired	S06-A03B	(1983-2009)	LINE (I.E. RASTER) SCANNING	Line (i.e. raster) scanning	S06-D01B	*This code is now discontinued, see S06-D01B. Raster output scanner	Laser, modulate, polygonal, mirror
Retired	S06-A03C	(1983-2009)	SYNCHRONISATION; CHANGING MAGNIFICATION	Synchronisation; changing magnification	S06-D10A	*This code is now discontinued, see S06-D10A. If synchronisation with sheet feeding is involved, then S06-A12 codes are also assigned. Includes all aspects of magnification/reduction lens systems.	Size, variable, enlarge, ratio, paper, select, adjust
Retired	S06-A03D	(1992-2009)	OPTICAL ELEMENTS, E.G. LENSES	Optical elements, e.g. lenses	S06-D03, S06-E03B	*This code is now discontinued, see S06-D03/E03B. See also S06-A03A, or S06-A03B if specific to type of exposure.	Mirror
Retired	S06-A03E	(1992-2009)	LIGHT SOURCE DRIVER (E.G. BIASING)	Light source driver (e.g. biasing)	S06-D02A, S06-E03A1	*This code is now discontinued, see S06-D02A/E03A1.	Illuminate, biasing
Retired	S06-A03E1	(1997-2009)	LIGHT SOURCE PER-SE	Light source per-se	S06-D02, S06-E03A	*This code is now discontinued, see S06-D02/E03A. Includes lamps (see also X26) and e.g. laser (see also U12/V08).	Lamp, LED
Retired	S06-A03F	(1992-2009)	DRIVING SYSTEM AND CONSTRUCTION	Driving system and construction	S06-D04, S06-E03C	*This code is now discontinued, see S06-D04/E03C. Includes mountings for optical system	Glass, feed, position
Retired	S06-A03F1	(1992-2009)	DOCUMENT FEEDER	Document feeder	S06-D04B	*This code is now discontinued, see S06-D04B.	Original, sheet, page, contact glass
Retired	S06-A03G	(1992-2009)	IMAGE READING APPTS.	Image reading appts.	S06-D	*This code is now discontinued, see S06-D. Includes electronic image acquisition scanner, raster input scanner.	Read
Retired	S06-A03G1	(1997-2009)	IMAGE SENSOR	Image sensor	S06-D05	*This code is now discontinued, see S06-D05. Electronic image CCD pick-up element of line type (see W02-J02A1 for facsimile type scanner) and of matrix type.	CCD
Retired	S06-A03G3	(2006-2009)	DETERMINING DETAILS OF ORIGINAL DOCUMENT	Determining details of original document	S06-D06	*This code is now discontinued, see S06-D06. Density and size measurement, color, page width/length, see also S02-A03B2 for length/width/thickness measurements.	
Retired	S06-A03H	(1992-2009)	MAGNETOGRAPHIC AND NON-LIGHT EXPOSURE	Magnetographic and non-light exposure	S06-D09	*This code is now discontinued, see S06-D09.	
Retired	S06-A03X	(1992-2009)	OTHER (EXPOSING)	Other (Exposing)	S06-D09	*This code is now discontinued, see S06-D09. Includes thermal and X-ray (electroradiography) exposure.	Electroradiography, X-ray
Retired	S06-A04	( -2009)	DEVELOPING	Developing	S06-E04	*This code is now discontinued, see S06-E04. Materials, e.g. liquids, toners, are coded in S06-A04C codes only. Includes copy density and darkness control and brush or magnetic applicator details. For removal of developer from drum see S06-A10A.	Bias, contrast, replenishment
Retired	S06-A04A	( -2009)	USING SOLID DEVELOPER	Using solid developer	S06-E04A	*This code is now discontinued, see S06-E04A.	Powder particles
Retired	S06-A04A1	(1992-2009)	DRY TONER SUPPLY AND STORAGE E.G. RESERVOIR	Dry toner supply and storage e.g. reservoir	S06-E04C	*This code is now discontinued, see S06-E04C. Toner supply from container, tank, hopper to developer chamber	
Retired	S06-A04A1A	(1992-2009)	TONER LEVEL DETECTOR	Toner level detector	S06-K07B1	*This code is now discontinued, see S06-K07B1. See also S06-A14 for monitoring aspects.	Refill
Retired	S06-A04A1B	(2002-2009)	TONER DENSITY DETECTOR	Toner density detector	S06-K07B2	*This code is now discontinued, see S06-K07B2. See also S06-A14 for monitoring aspects.	Refill
Retired	S06-A04A2	(1992-2009)	TONER APPLICATION	Toner application	S06-E04C	*This code is now discontinued, see S06-E04C. Includes application by magnetic brush arrangement, scavangeless.	
Retired	S06-A04A9	(1992-2009)	OTHER (USING SOLID DEVELOPER)	Other (using solid developer)	S06-E04	*This code is now discontinued, see S06-E04.	
Retired	S06-A04B	( -2009)	USING LIQUID DEVELOPER	Using liquid developer	S06-E04B	*This code is now discontinued, see S06-E04B.	Flow, fluid, suspension
Retired	S06-A04C	( -2009)	DEVELOPER MATERIALS	Developer materials	S06-E04	*This code is now discontinued, see S06-E04. Codes in this section cover materials per se and their manufacture only. Includes toner details for electrophotographic facsimile and laser printer.	Compound, particle, cellulose, composition, copolymer, disperse, dry, magnetic

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Retired	S06-A04C1	( -2009)	POWDER	Powder	S06-E04A1	*This code is now discontinued, see S06-E04A1.	Charge, resin, binder, component, polymer coating
Retired	S06-A04C2	( -2009)	LIQUID	Liquid	S06-E04B1	*This code is now discontinued, see S06-E04B1.	Suspension, polymer, resin, solvent, acid, aqueous, dispersion
Retired	S06-A04C5	(1997-2009)	MANUFACTURE AND MANUFACTURING APPTS.	Manufacture and manufacturing appts.	S06-E04D	*This code is now discontinued, see S06-E04D.	
Retired	S06-A04C9	(1997-2009)	OTHER (DEVELOPER MATERIALS)	Other (developer materials)	S06-E04X	*This code is now discontinued, see S06-E04X.	Cyan, ester, solution, aerosol
Retired	S06-A04X	(1997-2009)	OTHER (DEVELOPING)	Other (developing)	S06-E04X	*This code is now discontinued, see S06-E04X. Storing waste toner for disposal.	
Retired	S06-A05	( -2009)	TRANSFERRING IMAGES	Transferring images	S06-E05	*This code is now discontinued, see S06-E05. Includes removal of recording sheet from drum after transfer.	Surface, receive, separate, contact, dielectric
Retired	S06-A05A	(1997-2009)	CORONA CHARGER	Corona charger	S06-E05A	*This code is now discontinued, see S06-E05A. Includes all aspects of corona discharge. If corona ring or loop is claimed, then also coded in X12-F04.	Discharge
Retired	S06-A05A1	(2002-2009)	CORONA CHARGER TRANSFER OF TONER	Corona charger transfer of toner	S06-E05A1	*This code is now discontinued, see S06-E05A1.	Discharge
Retired	S06-A05A2	(2002-2009)	CORONA CHARGER SEPARATION OF PAPER	Corona charger separation of paper	S06-E05A2	*This code is now discontinued, see S06-E05A2.	Discharge
Retired	S06-A05B	(1997-2009)	CONTACT TYPE CHARGER	Contact type charger	S06-E05B	*This code is now discontinued, see S06-E05B. Transfer roller, blade, belt	
Retired	S06-A05B1	(2002-2009)	TRANSFER ROLLER OR BELT, TONER TRANSFER DETAILS	Transfer roller or belt, toner transfer details	S06-E05B1	*This code is now discontinued, see S06-E05B1.	
Retired	S06-A05B2	(2002-2009)	TRANSFER ROLLER OR BELT, PAPER SEPARATION DETAILS	Transfer roller or belt, paper separation details	S06-E05B2	*This code is now discontinued, see S06-E05B2.	
Retired	S06-A05C	(1997-2009)	INTERMEDIATE BELT/DRUM	Intermediate belt/drum	S06-E05C	*This code is now discontinued, see S06-E05C.	
Retired	S06-A05D	(2008-2009)	CARE OF TRANSFER APPTS.	Care of transfer appts.	S06-E05D	*This code is now discontinued, see S06-E05D. For lubrication of transfer roller, belt, intermediate roller or belt.	Lubricant
Retired	S06-A06	( -2009)	FIXING	Fixing	S06-E06	*This code is now discontinued, see S06-E06.	Flash
Retired	S06-A06A	(1992-2009)	HEAT AND PRESSURE APPLICATION	Heat and pressure application	S06-E06A	*This code is now discontinued, see S06-E06A. If heater aspects are claimed see X25-B codes also.	Fuse
Retired	S06-A06B	(1992-2009)	ROLL AND ROLL DRIVING	Roll and roll driving	S06-E06B1	*This code is now discontinued, see S06-E06B1. Includes clearing jams in fixing system. See also S06-A12B.	Roller
Retired	S06-A06B1	(1997-2009)	BELT AND BELT DRIVING	Belt and belt driving	S06-E06B2	*This code is now discontinued, see S06-E06B2.	
Retired	S06-A06C	(1992-2009)	FUSER OIL COMPOSITION AND APPLICATION	Fuser oil composition and application	S06-E06C	*This code is now discontinued, see S06-E06C.	
Retired	S06-A06C1	(1992-2009)	FUSER OIL COMPOSITION	Fuser oil composition	S06-E06C1	*This code is now discontinued, see S06-E06C1.	
Retired	S06-A06D	(1997-2009)	LUSTRE CONTROL	Lustre control	S06-E06D	*This code is now discontinued, see S06-E06D.	Heating, gloss, pre-heating
Retired	S06-A06P	(2008-2009)	PRE-FIXING	Pre-fixing	S06-E06P	*This code is now discontinued, see S06-E06P. E.g. for reducing the moisture content of the transfer material to increase its rigidity.	
Retired	S06-A06X	(1992-2009)	OTHER (FIXING)	Other (fixing)	S06-E06X	*This code is now discontinued, see S06-E06X. Cooling	
Retired	S06-A07	( -2009)	MULTI-PROCESSING STATIONS	Multi-processing stations	S06-E	*This code is now discontinued, see S06-E. This code is used when the system or process as a whole is claimed rather than any specific aspect.	Processor cartridge
Retired	S06-A07A	(1997-2009)	DRIVE SYSTEM FOR SEVERAL IMAGING STATIONS	Drive system for several imaging stations	S06-E	*This code is now discontinued, see S06-E. Driving linked colour stations	
Retired	S06-A08	( -2009)	USING MAGNETIC PATTERNS OR THERMOPLASTIC LAYERS	Using magnetic patterns or thermoplastic layers	S06-E07	*This code is now discontinued, see S06-E07. Includes all aspects of magnetography. Magnetic printer head details may also have T03-A03 codes assigned, depending on content. Magnetic line printers capable of use as computer peripherals are also coded in T04-G09.	Latent, heat, permeable, field, deformation
Retired	S06-A09	( -2009)	ELECTROGRAPHY NOT USING CHARGE PATTERNS	Electrography not using charge patterns	S06-E08	*This code is now discontinued, see S06-E08. Includes electrophoresis.	Polymer, deform, electrostatic, field, impact, magnetic, paper
Retired	S06-A10	( -2009)	CLEANING, RESIDUAL CHARGE ELIMINATION ETC.	Cleaning, residual charge elimination etc.	S06-K06	*This code is now discontinued, see S06-K06. Includes corona discharge, scrapers, ozone gas removal and charge-unifying drum exposure.	Develop, light, residue, dust, roll, collect, filter
Retired	S06-A10A	(1992-2009)	TONER REMOVAL	Toner removal	S06-K06C	*This code is now discontinued, see S06-K06C. Involves removal of toner.	Surface, brush, lube block
Retired	S06-A10A1	(1992-2009)	USING BLADE	Using blade	S06-K06C1	*This code is now discontinued, see S06-K06C1.	Scraper
Retired	S06-A10B	(1992-2009)	CHARGE REMOVAL AND OZONE REMOVAL	Charge removal and ozone removal	S06-K06B	*This code is now discontinued, see S06-K06B.	Drum, discharge
Retired	S06-A10C	(1997-2009)	RETURNING TONER FOR RE-USE	Returning toner for re-use	S06-K06C2	*This code is now discontinued, see S06-K06C2.	Recycle
Retired	S06-A10D	(2007-2009)	TRANSFER OF TONER TO COLLECTION OR WASTE CONTAINER	Transfer of toner to collection or waste container	S06-K06C3	*This code is now discontinued, see S06-K06C3. Covers mechanism for transferring toner to the collection or waste container for later removal and recycling outside the copier. See S06-A10C when the toner is recycled within the copier for immediate re-use. See S06-A17B for details of toner recycling systems.	

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Retired	S06-A10E	(2007-2009)	REMOVAL OF OTHER MATERIAL, E.G. DUST	Removal of other material, e.g. dust	S06-K06D	*This code is now discontinued, see S06-K06D. Includes details of air cleaning systems. If cleaned air is expelled outside the copier, see also X27-E01B2 (electrical aspects only).	
Retired	S06-A11	( -2009)	MULTICOLOUR SYSTEMS	Multicolour systems	S06-K01	*This code is now discontinued, see S06-K01. Used for any aspect of colour system, with other codes as appropriate. See also T04-G07 if for printer, and W02-J04 if for facsimile.	Dye, pigment, tint
Retired	S06-A11A	(1992-2009)	FULL COLOUR	Full colour	S06-K01A	*This code is now discontinued, see S06-K01A.	Four colour, magenta, cyan, yellow black
Retired	S06-A11B	(1992-2009)	TWO COLOUR, HIGHLIGHTING	Two colour, highlighting	S06-K01B	*This code is now discontinued, see S06-K01B.	Red
Retired	S06-A12	(1983-2009)	SHEET HANDLING/FEEDING	Sheet handling/feeding	S06-K02	*This code is now discontinued, see S06-K02. Includes all mechanisms for transporting sheet through copier, collators and sorters. See also T04-G06A if for printer, and W02-J05A if for facsimile.	Paper, document, roller, guide, position, side, belt, detect, platen, path
Retired	S06-A12A	(1983-2009)	MULTICOPIES: DUPLEX	Multicoopies: duplex	S06-K02A	*This code is now discontinued, see S06-K02A.	Reverse, double, invert
Retired	S06-A12B	(2007-2009)	FOR DIFFERENT PAPER SIZES	For different paper sizes	S06-K02B	*This code is now discontinued, see S06-K02B. For feeding paper of different lengths and thickness. From 2007 see S06-A12D for clearing jams.	
Retired	S06-A12C	(1992-2009)	COLLATORS AND SORTERS	Collators and sorters	S06-K02C	*This code is now discontinued, see S06-K02C. Includes feeding paper containing classified info to a locked tray. Includes paper stores. For stapling, binding, and paper cutting see S06-A18.	Stack, tray
Retired	S06-A12D	(2007-2009)	PAPER SKEW DETECTION, SKEW CORRECTION, CLEARING JAMS	Paper skew detection, skew correction, clearing jams	S06-K02D	*This code is now discontinued, see S06-K02D. For clearing jams in fixing system see also S06-A06B.	
Retired	S06-A12E	( -2009)	SHEET DECURLING	Sheet decurling	S06-K02E	*This code is now discontinued, see S06-K02E.	
Retired	S06-A12F	(2008-2009)	DUPLEX SHEET FEED	Duplex sheet feed			
Retired	S06-A14	(1987-2009)	CONTROL, MONITORING, WARNING DEVICES	Control, monitoring, warning devices	S06-K07	*This code is now discontinued, see S06-K07. Includes operating status display (for display control circuitry see T04-H codes), mode selection devices, microprocessor details (see also T01-J codes, e.g. T01-J08A), and recording inhibiting devices. See also T04-G10 codes if for printer.	
Retired	S06-A14A	(1992-2009)	USER INPUT AND DISPLAY	User input and display	S06-K07A1	*This code is now discontinued, see S06-K07A1. Includes mode selection keys, etc.	Indicate
Retired	S06-A14B	(1992-2009)	MONITORING AND ERROR DETECTION	Monitoring and error detection	S06-K07B	*This code is now discontinued, see S06-K07B. See also W02-J03A5 for facsimile.	Fault, reset
Retired	S06-A14C	(1992-2009)	CONTROL OF COPIER OPERATION	Control of copier operation	S06-K07A	*This code is now discontinued, see S06-K07A. Covers general details of control system.	
Retired	S06-A14D	(1997-2009)	POWER SUPPLY CONTROL	Power supply control	S06-K07A2	*This code is now discontinued, see S06-K07A2.	
Retired	S06-A14E	(1997-2009)	REMOTE MONITORING AND CONTROL	Remote monitoring and control	S06-K07C1	*This code is now discontinued, see S06-K07C1.	Billing
Retired	S06-A14F	(2005-2009)	MANAGEMENT OF CONFIDENTIAL/SECURE DOCUMENTS, E.G. PREVENTION OF ILLEGAL COPYING	Management of confidential/secure documents, e.g. prevention of illegal copying	S06-K07A3	*This code is now discontinued, see S06-K07A3. Preventing illegal copying of banknotes, securities and private documents, recognising copy prevention marks on documents, output to authorised operator. See also T01/T04 for image processing aspects and T05-J for testing of securities, banknotes, etc.	
Retired	S06-A15	(2002-2009)	ELECTROPHOTOGRAPHIC COPIER ROLLERS	Electrophotographic copier rollers	S06-K03H	*This code is now discontinued, see S06-K03H. General constructional details of rollers.	
Retired	S06-A16	(1987-2009)	ELECTRONIC COPIER	Electronic copier	S06-K07	*This code is now discontinued, see S06-K07.	
Retired	S06-A16A	(1992-2009)	DIGITAL COPIER, EDITING COPIER	Digital copier, editing copier	S06-K07A4	*This code is now discontinued, see S06-K07A4. Includes picture processing and modification aspects of otherwise conventional appt.	
Retired	S06-A16B	(1992-2009)	SYSTEMS WITH NON-ELECTROPHOTOGRAPHIC INPUT OR OUTPUT ARRANGEMENTS	Systems with non-electrophotographic input or output arrangements	S06-K99B together with	*This code is now discontinued, see S06-K99B together with S06-F/G/H/J codes. Includes systems with CCD sensor input, and thermal output.	
Retired	S06-A16C	(1997-2009)	SYSTEMS WITH ELECTROPHOTOGRAPHIC AND NON-ELECTROPHOTOGRAPHIC OUTPUT	Systems with electrophotographic and non-electrophotographic output	S06-K99B together with	*This code is now discontinued, see S06-K99B together with S06-F/G/H/J codes.	
Retired	S06-A17	(1997-2009)	RECYCLING SYSTEMS	Recycling Systems	S06-K04	*This code is now discontinued, see S06-K04. From 2005 covers all aspects of recycling. See also T04-G11B for printer, and/or W02-J05D for facsimile. See also X25-W04 for electrical aspects of recycling systems in general.	
Retired	S06-A17A	(2005-2009)	PAPER RECYCLING	Paper Recycling	S06-K04A	*This code is now discontinued, see S06-K04A. For removing toner from recording paper to enable re-use of paper.	Paper
Retired	S06-A17B	(2005-2009)	TONER RECYCLING	Toner Recycling	S06-K04B together with	*This code is now discontinued, see S06-K04B together with appropriate S06-E04 codes.	

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Retired	S06-A17C	(2005-2009)	COMPONENT RECYCLING	Component Recycling	S06-K04C	*This code is now discontinued, see S06-K04C. See also V04/X12 for recycling electrical components.	
Retired	S06-A18	(1992-2009)	FINISHING APPARATUS	Finishing apparatus	S06-K05	*This code is now discontinued, see S06-K05. For collators and sorters see S06-A12C.	
Retired	S06-A18A	(1997-2009)	STAPLING, BINDING, PAPER CUTTING, PAPER PUNCHING, PAPER FOLDING	Stapling, binding, paper cutting, paper punching, paper folding	S06-K05A	*This code is now discontinued, see S06-K05A. Includes bookbinding/stapling/cutting/punching devices situated inside the copier or separate bookbinding/stapling/cutting/punching machines attached to the copier.	
Retired	S06-A18B	(2006-2009)	LAMINATING	Laminating	S06-K05B	*This code is now discontinued, see S06-K05B. See also T04-G06B if for printer, and/or W02-J05B if for facsimile.	Laminating, protective layer
Retired	S06-A18C	(2008-2009)	SHREDDING	Shredding	S06-K05C	*This code is now discontinued, see S06-K05C. Includes immediate shredding directly after scanning.	
Retired	S06-A18D	(2008-2009)	ATTACHMENT OR PRINTING OF COPY PREVENTION MARKS TO DOCUMENT TO PREVENT FORGERY	Attachment or printing of copy prevention marks to document to prevent forgery	S06-K05D	*This code is now discontinued, see S06-K05D. Includes applying a magnetic wire, RFID tag, etc., as part of the printing process. If attaching a RFID tag, see also T04-K codes. Detection of copy prevention marks on documents are coded under S06-A14F. Details on watermarking also coded under T01.	
Retired	S06-A19	(1992-2009)	CONSTRUCTION	Construction	S06-K03	*This code is now discontinued, see S06-K03. Includes details of machine casing, framework, etc., and also internal mounting arrangements of components and modules. See also T04-G11 if for printer. Constructional details of the scanning arrangement, including document feeding through the scanner, are coded under S06-A03F only.	
Retired	S06-A19A	(1997-2009)	PAPER HOLDERS	Paper holders	S06-K03B	*This code is now discontinued, see S06-K03B.	Container, storage
Retired	S06-A19A1	(1997-2009)	CASSETTES	Cassettes	S06-K03B1	*This code is now discontinued, see S06-K03B1. For holding paper sheets before being fed for copying onto.	Container
Retired	S06-A19A2	(1997-2009)	TRAYS, BINS	Trays, bins	S06-K03B2	*This code is now discontinued, see S06-K03B2. For receiving documents or copy paper sheets after copying operation, duplex intermediate tray.	
Retired	S06-A19B	(1997-2009)	VENTILATION AND HUMIDIFYING MECHANISMS	Ventilation and humidifying mechanisms	S06-K03C	*This code is now discontinued, see S06-K03C.	Fan
Retired	S06-A19C	(1997-2009)	FRAMES, CASINGS, BEARINGS	Frames, casings, bearings	S06-K03D	*This code is now discontinued, see S06-K03D.	
Retired	S06-A19D	(2007-2009)	MANUFACTURE AND MANUFACTURING APPARATUS	Manufacture and manufacturing apparatus	S06-K03E	*This code is now discontinued, see S06-K03E. Covers manufacturing method and apparatus for the manufacture of copier elements. See also T04-G11A if for printer.	
Retired	S06-A19E	(2008-2009)	PACKAGING FOR ELECTROGRAPHY, ELECTROPHOTOGRAPHY AND MAGNETOGRAPHY	Packaging for electrography, electrophotography and magnetography	V04-X together with S06-K99	*This code is now discontinued, see V04-X together with S06-K99 codes.	
Retired	S06-A20	( -2009)	OTHER (ELECTROGRAPHY, ELECTROPHOTOGRAPHY, MAGNETOGRAPHY)	Other (electrography, electrophotography, magnetography)	S06-E09	*This code is now discontinued, see S06-E09. Recording paper is covered by S06-A01X. Includes forming electrostatic latent image as initial stage in data acquisition for e.g. audio and video systems, e.g. still picture camera with electrostatic latent image production (see also T03 and W04). Includes electrophotographic displays (see W05-E codes also), recycling other than paper and ink (see S06-A17, S06-A10C), non-copiable documents, etc.	Display, light
New	S06-D	(2010- )	SCANNING SYSTEMS	Scanning Systems	S06-A03, W02-J01, W02-J01C	Includes aspects of platen movement, copying station or unit holding original document, lens/mirror systems, drum and belt drive details and scanning drive (See also V07-K05). See also U14-H01B for thin film image sensor, U13-A01 and U13-A02 for circuitry and CCD. Details of scanners that are not part of an image forming device (e.g. flat bed scanners) are coded in T04-M only.	
New	S06-D01	(2010- )	SCANNING TYPE	Scanning Type			
New	S06-D01A	(2010- )	FRAME SCANNING	Frame Scanning	S06-A03A	Includes slit and full frame scanning.	
New	S06-D01B	(2010- )	RASTER/LINE SCANNING	Raster/Line Scanning	S06-A03B	Raster output scanner	Laser, modulate, polygonal, mirror
New	S06-D02	(2010- )	LIGHT SOURCE	Light Source	S06-A03E1	Lamps (see also X26) and e.g. laser (see also U12/V08).	Lamp, LED
New	S06-D02A	(2010- )	LIGHT SOURCE DRIVING	Light Source Driving	S06-A03E		Illuminate, biasing
New	S06-D03	(2010- )	OPTICAL ELEMENTS	Optical Elements	S06-A03D, W02-J01A	See also S06-D01 if specific to type of exposure.	Polygonal
New	S06-D04	(2010- )	DRIVE SYSTEM AND CONSTRUCTION	Drive System and Construction	S06-A03F, W02-J01B	Includes mountings for optical system. also V06 codes for motor details.	Glass, feed, position
New	S06-D04A	(2010- )	POSITION DETECTION AND ADJUSTMENT	Position detection and adjustment	W02-J01C	Includes control and error compensation of scanning velocity and position.	
New	S06-D04B	(2010- )	DOCUMENT FEEDER IN SCANNING SYSTEM	Document feeder in scanning system	S06-A03F1	Feeding of paper through the copier other than through the scanning arrangements are coded under S06-K02	Original, sheet, page, contact glass

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New	S06-D05	(2010- )	SENSORS	Sensors	S06-A03G1, W02-J02A	Electronic image CCD pick-up element of line type *** (see W02-J02A1 for facsimile type scanner) TO REMOVE *** and of matrix type.	CCD, photoelectric detector, thin film image sensor, multi-element array
New	S06-D05A	(2010- )	INTEGRAL READING CIRCUITY	Integral reading circuitry	W02-J02A1A		
New	S06-D06	(2010- )	DETERMINING DETAILS OF ORIGINAL DOCUMENT	Determining details of original document	S06-A03G3	Density and size measurement, color, page width/length, see also S02-A03B2 for length/width/thickness measurements.	
New	S06-D09	(2010- )	NON-LIGHT EXPOSURE	Non-light exposure	S06-A03H, S06-A03X	Includes thermal and X-ray (electroradiography) exposure.	Electroradiography, X-ray
New	S06-D10	(2010- )	COMBINED SCANNING AND PRINTING ARRANGEMENTS	Combined scanning and printing arrangements			
New	S06-D10A	(2010- )	SYNCHRONISING, CHANGING MAGNIFICATION	Synchronising, changing magnification	S06-A03C	If synchronisation with sheet feeding is involved, then S06-K02 codes are also assigned. Includes all aspects of magnification/reduction lens systems.	Size, variable, enlarge, ratio, paper, select, adjust
New	S06-E	(2010- )	ELECTROPHOTOGRAPHIC IMAGE PRODUCTION	Electrophotographic Image Production	S06-A, T04-G04, W02-		
New	S06-E01	(2010- )	RECORDING MEMBERS	Recording members	S06-A01, T04-G04C	Drum driving aspects are coded in S06-E03 codes only. Includes photosensitive paper, photoconductive belt, drum, etc. Toner is coded under S06-E04 only. Constructional details are also coded under S06-K03.	Layer, charge, conducting, image, surface, acceptor, compound, donor, dope, photoconductor, belt
New	S06-E01A	(2010- )	PHOTOCONDUCTIVE LAYERS	Photoconductive layers	S06-A01A	Includes all types of charge-generating layers and photosensitive paper. Also cross reference with T04-G04C for photosensitive materials for optical printer.	Hydrazone, photoreceiver, accept
New	S06-E01A1	(2010- )	ORGANIC	Organic	S06-A01A1		Cyclic, polycyclic, heterocyclic, quinone
New	S06-E01A2	(2010- )	INORGANIC	Inorganic	S06-A01A2		Amorphous, silicon, selenium, carry, dope, surface, oxide, polycrystalline
New	S06-E01A3	(2010- )	SENSITISER; BINDING MATERIALS	Sensitiser; binding materials	S06-A01A3		Dye, composition, photosensitiser, organic, oxidative potential
New	S06-E01A4	(2010- )	TREATMENT OF RECORDING MEMBERS	Treatment of recording members	S06-A01A4	Includes application of a lubricant to the surface of the drum, etc.	
New	S06-E01A9	(2010- )	OTHER (PHOTOCONDUCTIVE LAYER ASPECTS)	Other (photoconductive layer aspects)	S06-A01A9	Includes aspects of photoconductive belt/drum not covered by other S06-E01A codes	
New	S06-E01B	(2010- )	CARRIERS; INTERMEDIATE OR COVER LAYERS	Carriers; intermediate or cover layers	S06-A01B		Sensitive, image, amorphous, coating, drum, base layer, protective layer.
New	S06-E01C	(2010- )	MANUFACTURE	Manufacture	S06-A01D	Includes deposition of layers on drum.	Depositing
New	S06-E01C1	(2010- )	MANUFACTURING APPARATUS	Manufacturing apparatus	S06-A01D1		
New	S06-E01D	(2010- )	TEMPERATURE CONTROL	Temperature Control	S06-A01F	For warming up photoconductor layers on drum or belt up to normal working operation temperature. The control aspect is also coded by S06-K07A1. See also X25-B codes for details of electric heating.	Heater
New	S06-E01X	(2010- )	OTHER (RECORDING MEMBERS)	Other (recording members)	S06-A01X	Includes thermoplastic and photoelectric layers, paper treatment and manufacture, see S06-C02 codes for lithographic plate manufacture. Electric details of paper manufacture is also coded under X25-T09A.	Image, electrostatic, surface, copy, substrate, polymer
New	S06-E02	(2010- )	SENSITISING	Sensitising	S06-A02	Desensitisers for removing residual charge are coded in S06-K06.	Electrode, surface, electrostatic
New	S06-E02A	(2010- )	CORONA CHARGER	Corona charger	S06-A02A	Includes all aspects of corona discharge. If corona ring or loop is claimed, then also coded in X12-F04.	Discharge, electrode, grid, scorotron, corotron, dicorotron
New	S06-E02B	(2010- )	CONTACT CHARGER	Contact charger	S06-A02B		Roller, brush
New	S06-E03	(2010- )	EXPOSURE	Exposure	S06-A03	See also S06-D for combined scanning and printing arrangements	
New	S06-E03A	(2010- )	LIGHT SOURCE (FOR EXPOSURE)	Light Source (for exposure)	S06-A03E1, T04-G04B	See X26 for lamp details, for LED heads see also U12-A01A3 or U12-A01A6.	Lamp, LED
New	S06-E03A1	(2010- )	LIGHT SOURCE DRIVING (FOR EXPOSURE)	Light Source Driving (for exposure)	S06-A03E		Illuminate, biasing
New	S06-E03A2	(2010- )	LIGHT SOURCE TYPE - LED	Light source type - LED	W02-J02B2A		
New	S06-E03A3	(2010- )	LIGHT SOURCE TYPE - LASER	Light source type - Laser	W02-J02B2B		
New	S06-E03B	(2010- )	OPTICAL ELEMENTS	Optical Elements	S06-A03D, T04-G04A1		Polygonal, galvanometer
New	S06-E03C	(2010- )	DRIVE SYSTEM AND CONSTRUCTION	Drive System and Construction	S06-A03F, T04-G04A2	Includes mountings for optical system. Details of sheet feeding are coded under S06-K02 codes. See also V06 codes for motor details.	Scan
New	S06-E03C1	(2010- )	POSITION DETECTION AND ADJUSTMENT	Position detection and adjustment			

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New	S06-E04	(2010- )	DEVELOPING	Developing	S06-A04	Includes copy density and darkness control and brush or magnetic applicator details. For removal of developer from drum see S06-K06. For colour developer, see also S06-K01 codes. See also S06-K07B1A and S06-K07B1B for level detection and density detection of developing agent respectively. Inkjet inks and thermal ink ribbons are not coded here, but are coded by S06-G04 and S06-H02 respectively.	Bias, contrast, replenishment
New	S06-E04A	(2010- )	USING SOLID DEVELOPER	Using solid developer	S06-A04A		powder particles
New	S06-E04A1	(2010- )	COMPOSITION OF SOLID DEVELOPER	Composition of solid developer	S06-A04C1		Charge, resin, binder, component, polymer.
New	S06-E04B	(2010- )	USING LIQUID DEVELOPER	Using liquid developer	S06-A04B		Flow, fluid, suspension
New	S06-E04B1	(2010- )	COMPOSITION OF LIQUID DEVELOPER	Composition of liquid developer	S06-A04C2		Suspension, polymer, resin, solvent, acid, aqueous, dispersion
New	S06-E04C	(2010- )	DEVELOPER APPLICATION	Developer application	S06-A04A2	Includes application by magnetic brush arrangement, scavangeless.	
New	S06-E04D	(2010- )	MANUFACTURE OF DEVELOPER AGENT	Manufacture of developer agent	S06-A04C5		
New	S06-E04E	(2010- )	OTHER DEVELOPING AND DEVELOPER MATERIALS	Toner supply and storage	S06-A04C9, S06-A04X		
New	S06-E04X	(2010- )	OTHER DEVELOPING AND DEVELOPER MATERIALS	Other developing and developer materials	S06-A04C9, S06-A04X		
New	S06-E05	(2010- )	TRANSFERRING IMAGES	Transferring images	S05-A05	Includes removal of recording sheet from drum after transfer.	Surface, receive, separate, contact, dielectric
New	S06-E05A	(2010- )	CORONA CHARGER	Corona charger	S06-A05A	Includes all aspects of corona discharge. If corona ring or loop is claimed, then also coded in X12-F04.	Discharge
New	S06-E05A1	(2010- )	CORONA CHARGER - TRANSFER OF DEVELOPER	Corona charger - transfer of developer	S06-A05A1		
New	S06-E05A2	(2010- )	CORONA CHARGER - SEPARATION OF PAPER	Corona charger - separation of paper	S06-A05A2		
New	S06-E05B	(2010- )	CONTACT TYPE CHARGER	Contact type charger	S05-A05B		Transfer roller, blade, belt
New	S06-E05B1	(2010- )	CONTACT TYPE CHARGER - TRANSFER OF DEVELOPER	Contact type charger - transfer of developer	S06-A05B1		
New	S06-E05B2	(2010- )	CONTACT TYPE CHARGER - SEPARATION OF PAPER	Contact type charger - separation of paper	S06-A05B2		
New	S06-E05C	(2010- )	INTERMEDIATE BELT/DRUM	Intermediate belt/drum	S06-A05C		
New	S06-E05D	(2010- )	CARE OF TRANSFER APPARATUS	Care of transfer apparatus	S06-A05D	For lubrication of transfer roller, belt, intermediate roller or belt.	Lubricant
New	S06-E06	(2010- )	FIXING	Fixing	S06-A06		Flash
New	S06-E06A	(2010- )	HEAT AND PRESSURE APPLICATION	Heat and pressure application	S06-A06A	If heater aspects are claimed see X25-B codes also.	
New	S06-E06B	(2010- )	FUSER MECHANISM AND DRIVING	Fuser mechanism and driving			
New	S06-E06B1	(2010- )	FUSER ROLLER	Fuser roller	S06-A06B	See also S06-K03H for constructional details of rollers. *** TO REMOVE Includes clearing jams in fixing system. See also S06-K02. ***	roller
New	S06-E06B2	(2010- )	FUSER BELT	Fuser belt	S06-A06B1		
New	S06-E06C	(2010- )	FUSER OIL	Fuser oil	S06-A06C		
New	S06-E06C1	(2010- )	FUSER OIL COMPOSITION	Fuser oil composition	S06-A06C1		
New	S06-E06D	(2010- )	LUSTRE CONTROL	Lustre control	S06-A06D		Heating, gloss, pre-heating
New	S06-E06P	(2010- )	PRE-FIXING	Pre-fixing	S06-A06P	E.g. for reducing the moisture content of the transfer material to increase its rigidity.	
New	S06-E06X	(2010- )	OTHER FIXING DETAILS	Other fixing details	S06-A06X		Cooling
New	S06-E07	(2010- )	USING MAGNETIC PATTERNS OR THERMOPLASTIC LAYERS	Using magnetic patterns or thermoplastic layers	S06-A08, T04-G09	Includes all aspects of magnetography. Magnetic printer head details may also have T03-A03 codes assigned, depending on content. Includes magnetic line printers used as computer peripherals.	Latent, heat, permeable, field, deformation
New	S06-E08	(2010- )	ELECTROGRAPHY NOT USING CHARGE PATTERNS	Electrography not using charge patterns	S06-A09	Includes electrophoresis.	Polymer, deform, electrostatic, field, impact, magnetic, paper
New	S06-F	(2010- )	IMPACT IMAGE PRODUCTION	Impact Image Production	T04-G01	Includes mechanical action. Electromagnet and solenoid drive aspects are coded in V02-E02A also.	Armature, coil
New	S06-F01	(2010- )	DOT PRINTER	Dot Printer	T04-G01A		Matrix, pin, wire, needle
New	S06-F02	(2010- )	USING TYPE	Using Type	T04-G01B	Self contained typewriters are in S06-K99A.	Select, hammer, daisy-wheel, disc, step, font, typeface, golf-ball
New	S06-F03	(2010- )	RIBBON	Ribbon	T04-G01C	Includes printer ribbon re-inking.	Ink, cassette
New	S06-G	(2010- )	INK-JET IMAGE PRODUCTION	Ink-Jet Image Production	T04-G02, W02-J02B3		Liquid, dye, nozzle, resin, water, channel, drop, pressure, reservoir, eject, electrode, pulse
New	S06-G01	(2010- )	DROP-ON-DEMAND	Drop-on-demand	T04-G02A		Thermal ink-jet, bubble, piezoelectric, ultrasound
New	S06-G02	(2010- )	SELECTIVE DROP DEFLECTION	Selective drop deflection	T04-G02B		Charge, electrode, stream, gutter, continuous

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New	S06-G03	(2010- )	PRINthead DETAILS	Printhead details	T04-G02A1, T04-G02B	Search together with S06-K03 for constructional and manufacturing details. See also S06-G01 or S06-G02 to highlight the type of inkjet system. See also S06-K06A for printhead cleaning. Details of piezoelectric elements for inkjet printheads are also coded under V06-M06D.	
New	S06-G04	(2010- )	INKJET INK	Inkjet ink	T04-G02C		
New	S06-G05	(2010- )	RECORDING MEDIA	Recording Media	T04-G02E	Includes media composition and manufacture. Includes pre-print application of liquid (not ink) to paper/ pre-treatment of paper for ink jet printing. See also X25-T09A for electrical details of paper manufacture.	Paper, fabrics, OHP sheet, recording pattern of LCD screen
New	S06-G06	(2010- )	INK CHAMBER/CARTRIDGE	Ink Chamber/Cartridge	T04-G02G	See also S06-K03 for chamber construction. Search together with S06-G03 for combined chamber and printhead details. See also S06-K07B1A and S06-K07B1B for level detection and density detection of inkjet ink respectively.	
New	S06-G06A	(2010- )	REFILLING OF INK CARTRIDGE	Refilling of ink cartridge	T04-G02F		
New	S06-G07	(2010- )	POST INK APPLICATION PROCESSING	Post ink application processing	T04-G02H	Includes processes for treating ink after application using e.g. heat or UV light.	
New	S06-G10	(2010- )	APPLICATIONS OF INK-JET PRINTING TECHNOLOGY	Applications of ink-jet printing technology	T04-G02J	Covers printing on non-paperlike media, e.g. CD (see also T03). Includes textile printing (see also X25-T04D), 3-D printing and other industrial applications using inkjet technology. Manufacturing LCD screens and filters (see also U14).	
New	S06-H	(2010- )	THERMAL IMAGE PRODUCTION	Thermal Image Production	T04-G03, W02-J02B1	Includes thermal ink compositions and heat sensitive paper and ribbons. For photo-thermography, see also S06-E04.	Transfer, thermosensitive, resistive elements, thermal transfer ink ribbon
New	S06-H01	(2010- )	USING THERMALLY SENSITIVE PAPER	Using thermally sensitive paper	T04-G03A		
New	S06-H01A	(2010- )	COMPOSITION OF HEAT-SENSITIVE LAYER	Composition of heat-sensitive layer	T04-G03A1		
New	S06-H02	(2010- )	USING THERMAL RIBBON	Using thermal ribbon	T04-G03B	Includes use of thermal transfer sheets.	Cartridge
New	S06-H02A	(2010- )	THERMAL INK COMPOSITION	Thermal ink composition	T04-G03B1	Includes composition and manufacture of thermal ink. If colour ink, see also S06-K01. Ink for inkjet printer is only coded under S06-G02C.	Dye
New	S06-H03	(2010- )	PRINthead DETAILS FOR THERMAL PRINTER	Printhead details for thermal printer	T04-G03C	See also S06-K06A for printhead cleaning. For thin-film resistor heads see also U14 codes, e.g. U14-H01B.	
New	S06-J	(2010- )	ELECTRODE (E.G. ELECTROSENSITIVE/EROSIVE) IMAGE PRODUCTION	Electrode (e.g. electrosensitive/erosive) Image Production	T04-G05		
New	S06-K	(2010- )	IMAGE PRODUCTION UNITS FEATURES	Image Production Units features		Covers features common to all printer types such as paper feeding and control systems.	
New	S06-K01	(2010- )	COLOUR SYSTEM	Colour system	S06-A11, T04-G04, W0	Used for any aspect of colour system, with other codes as appropriate.	Dye, pigment, tint
New	S06-K01A	(2010- )	FULL COLOUR	Full colour	S06-A11A		Colour, magenta, cyan, yellow, black, CMY, CMYB, RGB
New	S06-K01B	(2010- )	TWO COLOUR, HIGHLIGHTING	Two colour, highlighting	S06-A11B		
New	S06-K02	(2010- )	SHEET FEEDING	Sheet feeding	S06-A12, T04-G06A, W	Includes all mechanisms for transporting sheet through copier, collators and sorters. For feeding of an original document through a scanner, see S06-D04B only. Constructional details of sheet feeding mechanisms are coded under S06-K03 codes.	Paper roll, paper tray, document holder
New	S06-K02A	(2010- )	MULTICOPIES; DUPLEX	Multicoopies; duplex	S06-A12A		Reverse, double, invert
New	S06-K02B	(2010- )	FOR DIFFERENT PAPER SIZE, CLEARING JAMS, SKEW CORRECTION	For different paper size, clearing jams, skew correction	S06-A12B	For feeding paper of different lengths and thickness. Paper skew detection is coded by S06-K02D.	
New	S06-K02C	(2010- )	COLLATORS AND SORTERS	Collators and sorters	S06-A12C	Feeding paper containing classified info to a locked tray. See T04-J codes for feeding outside printing unit.	
New	S06-K02D	(2010- )	PAPER SKEW DETECTION	Paper skew detection	S06-A12D	Paper skew correction is coded by S06-K02B. For clearing jams in fixing system see also S06-E06.	
New	S06-K02E	(2010- )	SHEET DECURLING	Sheet decurling	S06-A12E		
New	S06-K03	(2010- )	CONSTRUCTION	Construction	S06-A19, T04-G11, W0	Includes details of machine casing, framework, etc., and also internal mounting arrangements of components and modules.	
New	S06-K03A	(2010- )	CARRIAGE/MOTOR ASPECTS	Carriage/Motor aspects	T04-G06	Includes all carriage systems not coded elsewhere. Constructional details of motors are covered by V06 codes.	
New	S06-K03B	(2010- )	PAPER HOLDERS	Paper Holders	S06-A19A		Container, storage
New	S06-K03B1	(2010- )	CASSETTES	Cassettes	S06-A19A1	For holding paper sheets before being fed for copying onto.	
New	S06-K03B2	(2010- )	TRAYS, BINS	Trays, bins	S06-A19A2	For receiving documents or copy paper sheets after copying operation, duplex intermediate tray	

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New	S06-K03C	(2010- )	VENTILATION AND HUMIDIFYING MECHANISMS	Ventilation and humidifying mechanisms	S06-A19B		Fan
New	S06-K03D	(2010- )	FRAMES, CASES, BEARING	Frames, cases, bearing	S06-A19C		
New	S06-K03E	(2010- )	MANUFACTURE AND MANUFACTURING APPARATUS	Manufacture and manufacturing apparatus	S06-A19D	Covers manufacturing method and apparatus for the manufacture of elements.	
New	S06-K03F	(2010- )	CONNECTORS, CIRCUITRY	Connectors, circuitry	W02-J05C		
New	S06-K03G	(2010- )	POWER SUPPLY	Power supply	W02-J06	Includes mains and battery supplies for all types of units including portable systems. Control aspect of power supplies are coded by S06-K07A2 only. Also includes protection circuits. See U24-D, U24-E, U24-F and U24-X codes.	Surge, overload, back-up
New	S06-K03H	(2010- )	ROLLERS	Rollers	S06-A15	General constructional details of rollers. See also S06-E05B for transfer roller or S06-E06B1 for fuser roller.	
New	S06-K04	(2010- )	RECYCLING	Recycling	S06-A17, T04-G11B, W	See also X25-W04 for electrical aspects of recycling systems in general.	
New	S06-K04A	(2010- )	PAPER RECYCLING	Paper recycling	A06-A17A	For removing toner from recording paper to enable re-use of paper.	
New	S06-K04B	(2010- )	RECORDING AGENTS RECYCLING	Recording agents recycling	S06-A17B		
New	S06-K04C	(2010- )	COMPONENTS RECYCLING	Components recycling	S06-A17C	See also V04/X12 for recycling electrical components.	
New	S06-K05	(2010- )	FINISHING	Finishing	S06-A18, T04-G06B, W	For collators and sorters see S06-K02C.	
New	S06-K05A	(2010- )	STAPLING, BINDING, CUTTING, PUNCHING, FOLDING	Stapling, binding, cutting, punching, folding	S06-A18A	Includes bookbinding/stapling/cutting/punching devices situated inside the copier or separate bookbinding/stapling/cutting/punching machines attached to the copier.	
New	S06-K05B	(2010- )	LAMINATING	Laminating	S06-A18B		Laminating, protective layer
New	S06-K05C	(2010- )	SHREDDING	Shredding	S06-A18C, T04-G06S	Includes immediate shredding directly after scanning/printing.	
New	S06-K05D	(2010- )	ATTACHMENT OF ANTI-COPY MARK	Attachment of anti-copy mark	S06-A18D	Includes applying a magnetic wire, RFID tag, etc., as part of the printing process. If attaching a RFID tag, see also T04-K codes. Detection of copy prevention marks on documents are also coded under S06-K07A3. Details on watermarking also coded under T01.	
New	S06-K06	(2010- )	CLEANING/RECORDING AGENT REMOVAL	Cleaning/Recording Agent Removal	S06-A10, T04-G02D	Covers mechanism for transferring toner to the collection or waste container for later removal and recycling outside the copier. For details of toner or ink recycling, see S06-K04B.	
New	S06-K06A	(2010- )	PRINTHEAD CLEANING	Printhead cleaning			
New	S06-K06B	(2010- )	CHARGE AND OZONE REMOVAL	Charge and ozone removal	S06-A10B		Drum, discharge
New	S06-K06C	(2010- )	REMOVING EXCESS DEVELOPER AGENT	Removing excess developer agent	S06-A10A	Involves removal of toner.	
New	S06-K06C1	(2010- )	USING BLADE	Using blade	S06-A10A1		Scraper, doctor blade
New	S06-K06C2	(2010- )	RETURNING TONER / INK FOR RE-USE	Returning toner / ink for re-use	S06-A10C		
New	S06-K06C3	(2010- )	TRANSFER OF DEVELOPING AGENT TO WASTE CONTAINER	Transfer of developing agent to waste container	S06-A10D	Covers mechanism for transferring developing agent to the collection or waste container for later removal and recycling outside the printer/copier/facsimile. See S06-K06C2 when the toner is recycled within the copier for immediate re-use. See S06-K04B for details of recording agents recycling.	
New	S06-K06D	(2010- )	REMOVING DUST, ETC. FROM COMPONENTS	Removing dust, etc. from components	S06-A10E	Includes details of air cleaning systems. If cleaned air is expelled outside the copier, see also X27-E01B2 (electrical aspects only). Constructional details of ventilation and humidifying mechanisms are also coded by S06-K03C.	
New	S06-K07	(2010- )	COMMUNICATION AND CONTROL	Communication and Control	S06-A14, S06-A16, T04	Includes operating status display (for display control circuitry see T04-H codes), mode selection devices, microprocessor details (see also T01-J codes, e.g. T01-J08A), and recording inhibiting devices. Does not include motors and solenoids for carriage and platen movement.	
New	S06-K07A	(2010- )	GENERAL CONTROL SYSTEMS	General Control systems	S06-A14C, T04-G10A,		
New	S06-K07A1	(2010- )	USER INPUT AND DISPLAY	User input and display	S06-A14A, T04-G10A1	Includes mode selection keys, etc	Operator warning device, mode setting,
New	S06-K07A2	(2010- )	POWER SUPPLY CONTROL	Power supply control	S06-A14D		
New	S06-K07A3	(2010- )	MANAGEMENT OF CONFIDENTIAL/SECURE DOCUMENTS	Management of confidential/secure documents	S06-A14F, T04-G10F, W	Preventing illegal copying of banknotes, securities and private documents, recognising copy prevention marks on documents, output to authorised operator. See also T01/T04 for image processing aspects and T05-J for testing of securities, banknotes, etc. Attachment of anti-copy mark, e.g. a RFID, is also coded under S06-K05D. Secrecy details during communication, such as transmission data encoding, password, data encryption, etc., are also coded by S06-K07C7.	

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New	S06-K07A4	(2010- )	IMAGE PROCESSING	Image processing	S06-A16A, W02-J03A1	Includes details of digital copiers. See also T01.	Picture signal amplifier, halftone screening, edge enhancement, noise or error suppression
New	S06-K07A4A	(2010- )	COMPENSATION FOR ACQUISITION ASPECTS	Compensation for acquisition aspects	W02-J03A1A		Shading compensation
New	S06-K07A4B	(2010- )	CHANGING MAGNIFICATION, COMPOSING AND ELECTRONIC LAYOUT CONTROL	Changing magnification, composing and electronic layout control	W02-J03A2A, W02-J03		
New	S06-K07A4C	(2010- )	IMAGE OUTPUTTING	Image outputting	W02-J03A3	Includes systems for generating previews of image before sending (using e.g. a facsimile) or printing. Details of user display is also coded by S06-K07A1.	
New	S06-K07A4D	(2010- )	COMPRESSION/BANDWIDTH REDUCTION	Compression/bandwidth reduction	W02-J03B	See U21-A05 codes for coding in general, W04-P01A codes for TV signal compression, and W02-G04A codes for bandwidth reduction in general.	
New	S06-K07A5	(2010- )	COPY SHEET COUNTING	Copy sheet counting	W02-J03A7A		
New	S06-K07B	(2010- )	MONITORING SYSTEMS	Monitoring systems	S06-A14B, T04-G10G,	Covers monitoring systems of the device, monitoring of the communication system is S06-K07C6 only.	
New	S06-K07B1	(2010- )	MONITORING OF RECORDING AGENT	Monitoring of recording agent			refill
New	S06-K07B1A	(2010- )	RECORDING AGENT LEVEL DETECTION	Recording agent level detection	S06-A04A1A		
New	S06-K07B1B	(2010- )	RECORDING AGENT DENSITY DETECTION	Recording agent density detection	S06-A04A1B		
New	S06-K07C	(2010- )	COMMUNICATION	Communication	W02-J03C, W02-J08	Includes input-output arrangements, telephone interface and secrecy systems (with W02-L). Search W01-C05B1 and W01-C01H for telephone aspects also. For ISDN aspects see W01-C05B7. For LAN aspects see W01-A06 codes.	
New	S06-K07C1	(2010- )	REMOTE CONTROL/MONITORING	Remote control/monitoring	S06-A14E, T04-G10E	Search together with S06-K07A and S06-K07B codes as applicable.	
New	S06-K07C1A	(2010- )	PRINT JOB/QUEUE	Print Job/Queue	T04-G10E1		
New	S06-K07C2	(2010- )	INTERFACING	Interfacing	T04-G10C		
New	S06-K07C2A	(2010- )	TELEPHONE INTERFACING	Telephone interfacing	W02-J03C7	includes combined facsimile-telephone. See W01-C01P4. Also W01-C05B3H.	
New	S06-K07C2B	(2010- )	NETWORK INTERFACING	Network interfacing	W02-J08A	Includes aspects of printers with built in print server	
New	S06-K07C2C	(2010- )	ISDN INTERFACING	ISDN interfacing	W02-J08C	also W01-C05B7 codes for general aspects of ISDN.	
New	S06-K07C2D	(2010- )	COMPUTER INTERFACING	Computer interfacing	W02-J03C8	See also T01-C03B code.	
New	S06-K07C3	(2010- )	SIGNAL PROCESSING	Signal processing	W02-J03C1		
New	S06-K07C4	(2010- )	DETERMINING AND SETTING TRANSMISSION	Determining and setting transmission	W02-J03C2	Includes detecting type of receiving station (e.g. G3, G4).	Autodialler, modem
New	S06-K07C5	(2010- )	RECEPTION DETAILS	Reception details	W02-J03C5		Automatic answering
New	S06-K07C6	(2010- )	MONITORING AND ERROR CHECKING	Monitoring and error checking	W02-J03C3		
New	S06-K07C7	(2010- )	SECRECY	Secrecy	W02-J03C6	Includes transmission data encoding, password, data encryption. Management of confidential/secure documents are also coded by S06-K07A3.	
New	S06-K99	(2010- )	MACHINE TYPE	Machine Type		The machine type codes cover the application of a patent for a particular function. Patents that describe multiple applications will not be covered (except MFP).	
New	S06-K99A	(2010- )	SELF CONTAINED PRINTING MACHINE	Self contained printing machine		Self contained typewriters, label printers, independent units, hand held printing devices	
New	S06-K99B	(2010- )	COPIER	Copier			
New	S06-K99C	(2010- )	PRINTER	Printer		Printer peripherals for use with a computer.	
New	S06-K99D	(2010- )	FAX	Fax			
New	S06-K99F	(2010- )	MULTIFUNCTIONAL PERIPHERAL	Multifunctional peripheral		Includes patents describing the combination of two or more other machine types.	MFP
New	S06-K99F1	(2010- )	MULTIFUNCTIONAL PERIPHERAL INCLUDING FAX APPLICATION	Multifunctional peripheral including fax application	W02-J07		
New	S06-K99G	(2010- )	ANALOGOUS SYSTEMS	Analogous systems	W02-J10	For medical stimuable sheet phosphor systems see also S05-D02A5C. For electronic blackboard (previously coded in W02-J09) see also W04-W05.	
New	S06-K99X	(2010- )	OTHER (PRINTER TYPES)	Other (printer types)	T04-G09	Includes Braille printers,(see S05-K, T04-X for other Braille aspects), electronic pen recorders. Magnetic printers are coded under S06-E07 only.	
<b>T01</b>							
New	T01-N01A2M	(2010- )	CARBON TRADING	Carbon Trading		Covers emissions trading, previously coded as T01-N01A2F.	cap and trade, kyoto protocol
<b>T04</b>							
Changed	T04-F02A2	(1992- )	TOUCHSCREEN	Touchscreen		Details of touch sensors are coded under U21-B02C. Constructional details of the touchscreen are also coded under T04-F02C.	
Changed	T04-F02B7	(2002- )	THREE DIMENSIONAL INPUT	Three dimensional input		Includes power glove, 3-D input with strain gauges, virtual reality and acceleration measurements used as input e.g. tilt sensor used to scroll display on a PDA.	Glove

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Retired	T04-G	( -2009)	PRINTERS	Printers	S06-D to S06-K	*This code is now discontinued, see S06-D to K. Press/plate-type printers are in S06-C only. Includes all aspects of individual character and line printers. (Computer output interface details are in T01-C05A and T04-G10C). For facsimile applications see W02-J02B codes also.	Drive, feed, roll, copy, character, line, carriage, motor, head, record, word-processor
Retired	T04-G01	(1983-2009)	IMPACT	Impact	S06-F	*This code is now discontinued, see S06-F. Includes mechanical action. Electromagnet and solenoid drive aspects are coded in V02-E02A also.	Armature, coil
Retired	T04-G01A	(1983-2009)	DOT PRINTERS	Dot printers	S06-F01	*This code is now discontinued, see S06-F01.	Matrix, pin, wire, needle
Retired	T04-G01B	(1992-2009)	USING TYPE	Using type	S06-F02	*This code is now discontinued, see S06-F02. Self contained typewriters are in T04-G08.	Select, hammer, daisy-wheel, disc, step, font, typeface, golf-ball
Retired	T04-G01C	( -2009)	RIBBON	Ribbon	S06-F03	*This code is now discontinued, see S06-F03. From 2005 includes printer ribbon re-inking, previously coded in T04-X.	Ink, cassette
Retired	T04-G02	(1983-2009)	INK-JET	Ink-jet	S06-G	*This code is now discontinued, see S06-G.	Liquid, dye, nozzle, resin, water, channel, drop, pressure, reservoir, eject, electrode, pulse
Retired	T04-G02A	(2002-2009)	DROP-ON-DEMAND	Drop-on-demand	S06-G01	*This code is now discontinued, see S06-G01.	Thermal ink-jet, bubble, piezoelectric, ultrasound
Retired	T04-G02A1	(1983-2009)	PRINT HEAD FOR INK JET DROP-ON-DEMAND PRINTER	Print head for ink jet drop-on-demand printer	S06-G03	*This code is now discontinued, see S06-G03. Search together with T04-G11A for constructional and manufacturing.	Thermal ink-jet, bubble, piezoelectric, ultrasound
Retired	T04-G02B	(2002-2009)	SELECTIVE DROP DEFLECTION	Selective drop deflection	S06-G02	*This code is now discontinued, see S06-G02.	Charge, electrode, stream, gutter, continuous
Retired	T04-G02B1	(1992-2009)	PRINT HEAD FOR SELECTIVE DROP DEFLECTION PRINTER	Print head for selective drop deflection printer	S06-G03	*This code is now discontinued, see S06-G03. Search together with T04-G11A for constructional and manufacturing.	Charge, electrode, stream, gutter, continuous
Retired	T04-G02C	(2002-2009)	INK	Ink	S06-G04	*This code is now discontinued, see S06-G04.	
Retired	T04-G02D	(1997-2009)	INKJET HEAD CLEANING AND GENERAL MAINTENANCE OF PRINthead	Inkjet head cleaning and general maintenance of printhead	S06-K06	*This code is now discontinued, see S06-K06.	
Retired	T04-G02E	(2002-2009)	RECORDING MEDIA	Recording media	S06-G05	*This code is now discontinued, see S06-G05. Includes pre-print application of liquid (not ink) to paper/ pre-treatment of paper for ink jet printing. See also X25-T09A for electrical details of paper manufacture.	Paper, fabrics, OHP sheet, recording pattern of LCD screen
Retired	T04-G02F	(2005-2009)	REFILLING OF INK CARTRIDGE	Refilling of ink cartridge	S06-G06A	*This code is now discontinued, see S06-G06A.	
Retired	T04-G02G	(2005-2009)	INK CHAMBER	Ink Chamber	S06-G06	*This code is now discontinued, see S06-G06. See also T04-G11 for chamber construction and T04-G02F for refilling ink in chamber. Previously coded as T04-G02. Code with T04-G02A1/T04-G02B1 for combined chamber and printhead details.	
Retired	T04-G02H	(2005-2009)	POST INK APPLICATION PROCESSING	Post ink application processing	S06-G07	*This code is now discontinued, see S06-G07. Includes processes for treating ink after application using e.g. heat or UV light.	
Retired	T04-G02J	(1983-2009)	APPLICATIONS OF INK-JET PRINTING TECHNOLOGY	Applications of ink-jet printing technology	S06-G10	*This code is now discontinued, see S06-G10. Covers printing on non-paperlike media, e.g. CD (see also T03). Includes textile printing (see also X25-T04D), 3-D printing and other industrial applications using inkjet technology. Manufacturing LCD screens and filters (see also U14).	
Retired	T04-G03	(1992-2009)	THERMAL	Thermal	S06-H	*This code is now discontinued, see S06-H. Includes thermal ink compositions and heat sensitive paper and ribbons.	transfer, thermosensitive
Retired	T04-G03A	(1992-2009)	USING THERMALLY-SENSITIVE PAPER	Using thermally-sensitive paper	S06-H01	*This code is now discontinued, see S06-H01.	
Retired	T04-G03A1	(1992-2009)	COMPOSITION OF HEAT-SENSITIVE LAYER	Composition of heat-sensitive layer	S06-H01A	*This code is now discontinued, see S06-H01A.	
Retired	T04-G03B	(1992-2009)	USING THERMAL RIBBON	Using thermal ribbon	S06-H02	*This code is now discontinued, see S06-H02. Includes use of thermal transfer sheets.	Cartridge
Retired	T04-G03B1	(1992-2009)	THERMAL INK COMPOSITION	Thermal ink composition	S06-H02A	*This code is now discontinued, see S06-H02A. Includes composition and manufacture of thermal ink. If colour ink, see also T04-G07. Ink for inkjet printer is only coded under T04-G02C.	Dye
Retired	T04-G03C	(1983-2009)	PRINthead DETAILS FOR THERMAL PRINTER	Printhead details for thermal printer	S06-H03	*This code is now discontinued, see S06-H03. For thin-film resistor heads see also U14 codes, e.g. U14-H01B.	Printhead
Retired	T04-G04	(1992-2009)	OPTICAL (INCL. LASER)	Optical (incl. laser)	S06-E	*This code is now discontinued, see S06-E. For line projection onto photosensitive medium which is then electrophotographically developed, see S06-A03B also. If light deflection or modulation aspects are claimed, then see V07-K codes also. For facsimile see W02-J02B2. See S06-A04C codes for toner details.	toner, laser

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Retired	T04-G04A	(1992-2009)	OPTICAL SYSTEM, AND DRIVING SYSTEM	Optical system, and driving system	S06-E03	*This code is now discontinued, see S06-E03.	
Retired	T04-G04A1	(1992-2009)	OPTICS (E.G. LENSES AND MIRRORS)	Optics (e.g. lenses and mirrors)	S06-E03B	*This code is now discontinued, see S06-E03B.	Polygonal, galvanometer
Retired	T04-G04A2	(1992-2009)	DRIVING SYSTEM	Driving system	S06-E03C	*This code is now discontinued, see S06-E03C. See also V06 codes for motor details.	Scan
Retired	T04-G04B	(1992-2009)	PRINTHEAD DETAILS, INCLUDING LIGHT SOURCE	Printhead details, including light source	S06-E03A	*This code is now discontinued, see S06-E03A. For LED heads see also U12-A01A3 or U12-A01A6.	Array, LED, shutter
Retired	T04-G04C	(1983-2009)	PHOTOSENSITIVE MATERIALS	Photosensitive materials	S06-E01	*This code is now discontinued, see S06-E01. Includes photosensitive paper, photoconductive belt, drum, etc. Toner is coded under T04-G04 only. Constructional details are also coded under T04-G11A.	Photoconductor, belt, sheet
Retired	T04-G05	(1983-2009)	ELECTRODE (E.G. ELECTROSENSITIVE/EROSIVE)	Electrode (e.g. electro-sensitive/erosive)	S06-J	*This code is now discontinued, see S06-J. Electrostatic printing using any means other than light for charging. For electrographic details (e.g. developing) see also S06-A codes. If not specifically for printing see also S02-K.	Electrostatic, dielectric, electrochromic, stylus
Retired	T04-G06	(1992-2009)	SHEET BREADTH CONTROL, CARRIAGE DRIVE FOR SHEET CONTROL	Sheet breadth control, carriage drive for sheet control	S06-K03A	*This code is now discontinued, see S06-K03A. Includes solenoids and motors, but not control circuitry, which is covered by T04-G10A, paper cutting.	Position, step, margin, tabulate, space, nip
Retired	T04-G06A	(2005-2009)	MEDIA FEEDING	Media feeding	S06-K02	*This code is now discontinued, see S06-K02. See also S06-A12 codes if for copier, W02-J05A if for facsimile.	Line feed, paper
Retired	T04-G06B	(2006-2009)	FINISHING APPARATUS	Finishing apparatus	S06-K05	*This code is now discontinued, see S06-K05. Includes stapling, binding, laminating, etc. See also S06-A18 for copier apparatus, W02-J05B for fax and S06-C05 for industrial process. For devices independent of printer see T04-J02.	
Retired	T04-G06C	( -2009)	TRANSFERRING IMAGE	Transferring image	S06-K05	*This code is now discontinued, see S06-K05. E.g. in ink jet printer - jetting onto substrate and then transfer to final substrate.	
Retired	T04-G06S	(1992-2009)	SHREDDING	Shredding	S06-K05C	*This code is now discontinued, see S06-K05C. Includes details of shredder integrated into printer, e.g. for automatically shredding confidential paper after paper jam.	
Retired	T04-G07	(1992-2009)	COLOUR PRINTING	Colour printing	S06-K01	*This code is now discontinued, see S06-K01. See also S06-A11 codes if for copier, and W02-J04 if for facsimile.	CMYK
Retired	T04-G08	( -2009)	SELF CONTAINED TYPEWRITERS AND PRINTING DEVICES	Self contained typewriters and printing devices	S06-K99A	*This code is now discontinued, see S06-K99A. Self contained typewriters, label printers, independent units, hand held printing devices	
Retired	T04-G09	(1992-2009)	OTHER PRINTER TYPES	Other printer types	S06-K	*This code is now discontinued, see S06-K. Includes magnetic (for magnetography see S06-A08 also) and Braille printers. (see S05-K, T04-X for other Braille aspects), electronic pen recorders.	
Retired	T04-G10	(1992-2009)	CONTROL SYSTEMS FOR PRINTERS	Control systems for printers	S06-K07	*This code is now discontinued, see S06-K07. Does not include motors and solenoids for carriage and platen movement which are covered by T04-G06.	
Retired	T04-G10A	(2005-2009)	INTERNAL CONTROL	Internal control	S06-K07A	*This code is now discontinued, see S06-K07A. Includes control circuitry, power management.	
Retired	T04-G10A1	(1992-2009)	USER INPUT AND DISPLAY	User input and display	S06-K07A1	*This code is now discontinued, see S06-K07A1. Includes mode selection keys, etc. See also S06-A14A if for copier and W02-J03A4 if for facsimile.	
Retired	T04-G10C	(1992-2009)	INTERFACE	Interface	S06-K07C2	*This code is now discontinued, see S06-K07C2. Also coded in T01-C05A.	Serial, parallel, Centronics, RS232
Retired	T04-G10E	(2005-2009)	CONTROL FROM OUTSIDE PRINTER	Control from outside printer	S06-K07C1	*This code is now discontinued, see S06-K07C1. See also S06-A14E if for copier, see T01-C05A for output to printer, T01-H05A for print drivers and T01-J08F for diagnostic aspects of any peripheral equipment. Network printers will also require other T01 codes.	Network printer, print driver
Retired	T04-G10E1	(2006-2009)	PRINT JOB/QUEUE	Print Job/Queue	S06-K07C1A	*This code is now discontinued, see S06-K07C1A. See also T01-C05A/T01-C05A1 for output to printer and T01-H05A for print drivers.	
Retired	T04-G10F	(2007-2009)	MANAGEMENT OF CONFIDENTIAL / SECURE DOCUMENTS, E.G. PREVENTION OF ILLEGAL COPYING	Management of confidential / secure documents, e.g. prevention of illegal copying	S06-K07A3	*This code is now discontinued, see S06-K07A3. Prevention of illegal printing of private documents, etc, recognizing or printing copy prevention mark on documents, output to authorised operator. See S06-A14F if for copier, W02-J03C6 if for facsimile, T01 for image processing aspects, and T05-J for testing of securities, banknotes, etc.	
Retired	T04-G10G	(2005-2009)	MONITORING OF PRINTING	Monitoring of printing	S06-K07B	*This code is now discontinued, see S06-K07B. Search together with T04-G10A or T04-G10E for details of where the monitoring takes place (internal or external). See also S06-A14B for copiers, and W02-J03A5 for facsimiles.	

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Retired	T04-G11	(2005-2009)	GENERAL CONSTRUCTION	General Construction	S06-K03	*This code is now discontinued, see S06-K03. See also codes for printer type e.g. T04-G02 for inkjet printer, etc.	
Retired	T04-G11A	(2005-2009)	CONSTRUCTION AND MANUFACTURING DETAILS OF PRINTER	Construction and manufacturing details of printer	S06-K03	*This code is now discontinued, see S06-K03. Includes mechanical details, manufacture and manufacturing apparatus. See also S06-A19 codes if for copier. See T04-L01/L05 prior to 2005	
Retired	T04-G11B	( -2009)	RECYCLING SYSTEMS	Recycling Systems	S06-K04	*This code is now discontinued, see S06-K04. See also S06-A17 for copier, and/or W02-J05D for facsimile. See also X25-W04 for electrical aspects of recycling systems in general.	
Retired	T04-H03C1A	(1997-2009)	DRIVER CIRCUITRY	Driver circuitry		See also U12-A01A5B for array or U12-A01A5A for single LED.	
Retired	T04-H03C2A	(1997-2009)	DRIVER CIRCUITRY	Driver circuitry		See also U14-K01A3.	
Retired	T04-H03C3A	(1997-2009)	DRIVER CIRCUITRY	Driver circuitry		U14-J03.	
Retired	T04-H03C4A	(1997-2009)	DRIVER CIRCUITRY	Driver circuitry		See also V05-A01G.	
Retired	T04-H03C5A	(2002-2009)	FIELD EMISSION DISPLAY DRIVER CIRCUITRY	Field emission display driver circuitry		See also V05.	
Retired	T04-H03C6A	(2002-2009)	DIGITAL MICROMIRROR DISPLAY DRIVER CIRCUITRY	Digital micromirror display driver circuitry			
Retired	T04-H03C7A	(2006-2009)	ELECTROPHORETIC DISPLAY DRIVER CIRCUITRY	Electrophoretic display driver circuitry			
New	T04-H03F	(2010- )	DRIVER CIRCUITRY	Driver circuitry		Search together with other T04-H02 codes as appropriate to denote application of driver circuitry.	
New	T04-K02C3	(2010- )	CONTROL, CIRCUITRY OF CARD READER/WRITER	Control, circuitry of card reader/writer			
Changed	T04-L09	(1987- )	CONSTRUCTIONAL DETAILS OF PERIPHERAL AND ANCILLARY EQUIPMENT - OTHER	Constructional details of peripheral and ancillary equipment - other		Accessories, mouse mat, arm rest, theft alarm - cross reference to W05, document stand.	Filter, screen, antistatic, theft alarm, mouse mats, arm rest, attachments, protective cover
Changed	T04-M	(1992- )	(DIGITISER) SCANNER FOR COMPUTER INPUT	(Digitiser) scanner for computer input	W02-J	See S06-D only for scanning arrangements for image forming devices.	
New	T04-M03	(2010- )	CONSTRUCTION AND MANUFACTURING DETAILS OF SCANNERS	Construction and manufacturing details of scanners	T04-M	Includes details of casing, framework and internal mounting arrangements of components and modules.	frames, glass, sheet, PCB
New	T04-M04	(2010- )	CONTOL CIRCUITRY OF SCANNERS	Contol circuitry of scanners	T04-M	Includes internal control and power management.	control, circuit, power supply
<b>U25</b>							
Changed	U25-E05Q	(2009- )	DELAY EQUALISATION AND ALL-PASS NETWORKS	Delay equalisation and all-pass networks		This code is intended for circuits in which emphasis is on delay equalization (and not amplitude equalization) and all-pass networks, in which all frequencies are passed, but the phase of the output is modified. Analogue circuits based on lumped constant impedances for correcting amplitude-frequency distortion are covered by U25-E05X but U25-E05Q takes precedence when delay equalisation is the main purpose.	
Changed	U25-E05X	(1992- )	OTHER FILTER NETWORK FUNCTION	Other filter network function		This code includes frequency-dependent circuits used for amplitude equalisation, e.g. to compensate for increasing attenuation in a circuit or transmission line with frequency. (W02-C01B2B is also assigned when the application is to equalization of transmission lines for communications purposes and W01-A08B2 when the emphasis is on pulse shaping for data transmission). Prior to 2009 U25-E05X was also used for circuits with emphasis on delay equalization, now covered by U25-E05Q which takes precedence over this code when both amplitude and delay equalization are involved. Analogue time delay networks are covered by U25-A05. See U25-F01 codes for networks with emphasis on achieving a particular phase shift. From 2009 frequency selective networks (i.e. filters normally) with emphasis on the separation or combining of frequency bands are no longer coded here and are covered by U25-E05K.	
<b>V01</b>							
Changed	V01-B01G5	(1992- )	ASSEMBLY	Assembly		Includes manufacture of leads and external electrodes. Attachment of manufactured leads and external electrodes is covered by V01-B01G5C. Production of internal electrodes is covered by V01-B01G1.	
Changed	V01-B01G5C	(1992- )	ATTACHING LEADS	Attaching leads		This code covers the attachment of leads and external electrodes only. Manufacture of leads and external electrodes is covered by V01-B01G5.	
<b>V03</b>							

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Changed	V03-C10	(1997- )	MICROSWITCHES	Microswitches		Covers details of small-size switches that act by the movement of small levers and used where rapid precise movements are required, especially in keyboards and automatic control devices. For manufacturing details of microswitches or nanoswitches, see also V03-C07A.	Micromachining
Changed	V03-C10A	(2002- )	NANOSWITCHES	Nanoswitches		For manufacturing details (micromachining), see also V03-C07A.	
Changed	V03-D06C	(1987- )	ARC CONTROL	Arc control		For manufacturing details of microrelays or nanorelays, see also V03-D06B1.	
Changed	V03-U03	(2002- )	VEHICLES	Vehicles		Includes switches for unspecified vehicles. If the type of vehicle is specified, see V03-U03A, V03-U03B, V03-U03C, V03-U03D or V03-U03E for land vehicles, avionics, shipping, military or railway vehicles respectively.	
New	V03-U03E	(2010- )	RAILWAYS	Railways		Includes switches for railway vehicles, such as locomotives, carriages, etc. used for passengers, in mines, etc.	
<b>V04</b>							
New	V04-R04A4	(2010- )	ULTRASONIC SOLDERING	Ultrasonic soldering		See also X24-A02X for general ultrasonic soldering.	
<b>V06</b>							
Changed	V06-M06D	(1987- )	PIEZOELECTRIC OR ELECTROSTRICTIVE MOTORS, ACTUATORS; PIEZOELECTRIC GENERATORS	Piezoelectric or electrostrictive motors, actuators; piezoelectric generators		Includes piezoelectric elements placed in printheads of inkjet printers (see also S06-G codes for inkjet printers). Also includes surface acoustic wave actuators for which U14-G is also assigned.	SAW actuator
Changed	V06-M13	(1992- )	COOLING, VENTILATION	Cooling, ventilation	V06-M20	This code covers cooling and/or ventilation of e.g. the motor itself, and not when the motor is part of the cooling/ventilation system for cooling another device.	
Changed	V06-M20		DETAILS - OTHER	Details - other		This code includes details of model illustrating / demonstrating how an electric motor works. See also W04-W07C for demonstration of process or effect.	
Changed	V06-V01B	(2007- )	PIEZOELECTRIC; ELECTROSTRICTIVE	Piezoelectric; electrostrictive		Details of piezoelectric or electrostrictive materials are covered by both V06-V01B and V06-V02R ('Materials').	Piezoceramic, quartz, ceramic
Changed	V06-V01N	(2007- )	ULTRASONIC TRANSDUCERS	Ultrasonic transducers		Includes details of supersonic transducers and ultrasonic cleaning. Ultrasonic cleaning is also covered by V06-V04C and X25-H09A.	
Changed	V06-V02R	(2007- )	MATERIALS	Materials		Manufacturing details of materials are covered by both V06-V02R and V06-V03A9 ('Other transducer manufacture'). Details of piezoelectric or electrostrictive materials are covered by V06-V02R and V06-V01B ('Piezoelectric; electrostrictive').	
Changed	V06-V02X	(2007- )	OTHER TRANSDUCER DETAILS	Other transducer details		Includes transducer details not covered elsewhere. Also includes details of model illustrating / demonstrating how a transducer works. See also W04-W07C for demonstration of process or effect.	
Changed	V06-V03A9	(2007- )	OTHER TRANSDUCER MANUFACTURE	Other transducer manufacture		Includes manufacture of transducer details not covered by the above codes. Includes manufacturing details of materials (see also V06-V02R).	
Changed	V06-V03B	(2007- )	TESTING; MONITORING	Testing; monitoring		This code includes testing and monitoring details of transducers, and not when the transducers are used as testing or sensing transducers, e.g. when the transducer is used to detect the tire pressure. Sensing, testing and imaging-type transducers are coded under V06-V04G.	
Changed	V06-V04C	(2007- )	VIBRATORS (MECHANICAL WORK)	Vibrators (mechanical work)		Includes transducers for performing mechanical work e.g. shock wave generator for lithotripsy. For industrial-scale vibration generators see X25-L codes. See V06-M codes for motors and actuators.	Buzzers, ultrasonic cleaning
<b>W01</b>							
Changed	W01-A06A3	(2005- )	NETWORK USAGE AND OPERATION MONITORING	Network usage and operation monitoring		Includes measurement of network activity and quality of service, detection of overload/blocking condition, and resource allocation with W01-A06E. See T01-N02B2 for computer network aspects of monitoring. Analogous arrangements in telephone switching are covered by W01-C02A1A. From 2010 resource allocation in radio communication is covered by W02-C03G1 and cognitive radio systems are covered by W02-C03G5 with W01-A06A3, W01-A06E and wireless network codes assigned as appropriate.	QoS

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Changed	W01-A06F1A	(2002- )	CONTENTION PROTOCOLS	Contention protocols	W01-A03A1, W01-A06	Includes Carrier Sense Multiple Access/Collision Detect (CSMA/CD and CA) and Ethernet. Request handling for interconnection or data transfer in computer systems is covered by T01-H05 codes, e.g. T01-H05B3 for contention avoidance for access to common bus. W01-A06F1A is also used for network access aspects of cognitive radio (with W01-A06C4 codes) based on channel state sensing in which case W02-C03G5 is also assigned from 2010. Resource allocation in data networks in general is covered by W01-A06A3 and W01-A06E.	Collision detection, DC level shift, heterodyne, Ethernet(r), timeout period, random delay, collision avoidance, contention
Changed	W01-A07H2	(2010- )	RADIO AND NEAR-FIELD INTERFACE	Radio and near-field interface		From 2010 the title of this code has been changed to reflect the inclusion of near-field interfaces, now covered by W01-A07H2N. See W02-C02 codes for novel details of near-field systems, W02-C03 codes for details of radio systems and W02-G codes for radio equipment itself. Specific aspects of protocol peculiar to the interface types listed below are covered by additional assignment of W01-A07G codes, the intention of the W01-A07H2 codes being to characterise the interface from the radio viewpoint. Radio links specifically for network communication between several stations are covered by W01-A06C4 codes.	
Changed	W01-A07H2A	(2010- )	BLUETOOTH AND ZIGBEE RADIO INTERFACE	Bluetooth and ZigBee radio interface		From 2010 the title of this code is changed to reflect the previous inclusion of ZigBee-based radio interfaces. Wireless network aspects of Bluetooth and ZigBee systems (i.e. more than two stations communicating using IEEE 802.15 standard) are covered by W01-A06C4A. Novel aspects of the frequency-hopping system are also assigned W02-K05A6 and other W02-K05 codes as appropriate.	
New	W01-A07H2N	(2010- )	NEAR-FIELD INTERFACE	Near-field interface	W01-A07H2, W02-C02	This code covers interfaces for transfer of digital data using near-field communication (NFC). Novel aspects of the near-field system are also assigned W02-C02 and W02-G codes as appropriate. Near-field interfaces for mobile phones are also assigned W01-C01D3C and W01-C01R. Use of a mobile phone as an electronic ticket or similar is covered by W01-C01D3C and W01-C01P9.	NFC interface
Changed	W01-C01D3B	(1992- )	CAR	Car		Includes bike phones and portable phone adapted to be connected to a transceiver permanently mounted in a vehicle (with W01-C01D3C).	
Changed	W01-C01D3D	(1992- )	TELEPHONE IDENTIFICATION	Telephone identification		From 2009 the title of this code is changed (formerly 'Security, ID') to reflect its main focus on identification aspects within the telephone itself. It includes use of e.g. International Mobile Equipment Identity (IMEI) number, and also Subscriber Identity Module (SIM) cards and the like, in the case of mobile phones for which W01-C01D3C is normally also assigned. (T04-K codes are also assigned for smart card aspects). Use of two or more cards is covered from 2010 by W01-C01D3K, which takes precedence over this code. Arrangements to transmit ID data for security and billing purposes which involve some novelty in the phone itself are included here, but novel telephone system aspects of checking ID and entitlement to access e.g. a mobile telephone network are covered by W01-C02B6A (with W01-B05A1A) and are not assigned W01-C01D3D. Subscriber registration (by the telephone network) is covered by W01-B05A1N. General aspects of telephone security such as preventing access, theft alarms and dialling restriction are not included here, being covered by W01-C01Q8 and W01-C01B5 codes respectively.	ID, IMEI, IMSI, MEID, PIN, SIM, USIM

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Changed	W01-C01D3J	(2002- )	DUAL OR MULTI-BAND MOBILE PHONE	Dual or multi-band mobile phone		This code is assigned for phones capable of operating in two or more cellular bands, e.g. 900 and 1900 MHz. As such, it is likely to involve RF details and corresponding assignment of W02 codes. Prior to 2010 W01-C01D3J was assigned to indicate multiple SIM card aspects of mobile phones with W01-C01D3C and W01-C01D3D. From 2010, W01-C01D3K specifically covers the use of multiple SIM cards and W01-C01D3J will only be assigned for genuine multi-band aspects.	GSM, PCS
New	W01-C01D3K	(2010- )	DUAL OR MULTIPLE SIM-CARD MOBILE PHONE	Dual or multiple SIM-card mobile phone	W01-C01D3J	This code takes precedence over W01-C01D3D and is assigned for phones capable of operating with two or more SIM cards or analogous devices, e.g. enabling use of different identities or different service providers. Dual or multi-band mobile phones are covered by W01-C01D3J which is also assigned as appropriate. Prior to 2010 W01-C01D3J was assigned for this topic with W01-C01D3D.	Dual SIM, Multi SIM
Changed	W01-C01Q8	(2002- )	SECURITY ASPECTS	Security aspects		This code is used for general security aspects of the telephone control system. SIM card aspects of mobile phones are covered by W01-C01D3D and security aspects involving dialling restrictions are covered by W01-C01B5 codes. From 2010 W01-C01Q8E is introduced for arrangements to prevent access to confidential data stored in a mobile phone.	
New	W01-C01Q8E	(2010- )	PREVENTING ACCESS TO CONFIDENTIAL DATA	Preventing access to confidential data		This code is intended for arrangements with the emphasis on preventing access to confidential data stored in a mobile phone or similar. It includes arrangements for erasing data both locally and remotely (e.g. by the owner or service provider in the case of a stolen device), and also for preventing unauthorised access via a Bluetooth or similar link. Aspects involving the digital interface itself are also assigned W01-C01R. Preventing access to, or use of, the phone as a whole is covered by other W01-C01Q8 codes or W01-C01B5 codes.	Anti-hacking, Bloover, bluejacking, bluesnarfing, intrusion, remote erasure
Changed	W01-C02B9	(1992- )	SUBSCRIBER SERVICES - OTHER	Subscriber services - other		Includes interactive voice response systems for which W04-V04 codes are also assigned.	IVR
<b>W02</b>							
New	W02-B01R	(2010- )	NOVEL RADIATING ELEMENT	Novel radiating element		This code is intended to indicate novelty in the radiating element of an antenna, e.g. its shape or configuration, and is used in conjunction with other W02-B01 codes as necessary to highlight novel aspects. Note that W02-B01R is not used to denote shape or configuration that is a standard feature of the antenna type, such as a helical antenna which is covered by W02-B01C3 codes alone.	
Changed	W02-B08A	(2010- )	MEASURING; TESTING; SET-UP	Measuring; testing; set-up		W02-B08A codes cover monitoring/testing of antenna performance in a general sense, measurement of specific antenna parameters, and antenna set-up and alignment. 'Electrical instrument' (S01) codes are also assigned as appropriate for testing and measuring aspects, especially S01-G08A5.	
Retired	W02-B08B3	(1992-2009)	ISOLATION BETWEEN ADJACENT ANTENNAS OR ANTENNA SYSTEMS	Isolation between adjacent antennas or antenna systems		This code is now discontinued and from 2010 arrangements for improving isolation between adjacent antennas are covered by W02-B08P6.	Separation, shield, repeater, receiver, desensitising
New	W02-B08P6	(2010- )	IMPROVED ISOLATION BETWEEN ADJACENT ANTENNAS	Improved isolation between adjacent antennas	W02-B08B3	This code covers arrangements for reducing unwanted interaction between antennas and improving isolation between them. Arrays of antennas designed to operate together are covered by W02-B05 codes.	Blocking, cancellation, desensitizing, phase, screen, separation, shield, receiver, repeater
Changed	W02-C02		NEAR-FIELD SYSTEMS	Near-field systems		Includes transmission over deliberately restricted area using predominately magnetic or electric fields, but not conventional radio systems of very low power. W02-C02A or W02-C02B are assigned to indicate system type and W02-C02G codes are assigned to indicate application. Near-field data interfaces are covered from 2010 by W01-A07H2N with W02-C02 codes only assigned for novel near-field aspects.	NFC

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Changed	W02-C03C1	(1987- )	CELLULAR	Cellular	W02-C03X	Application to telephone systems is indicated by assignment of W01-B05A1A for systems (with W02-C03C1A) or base stations (with W02-C03C1B), and by W01-C01D3 codes for subscriber telephones themselves (with W02-C03C1C). From 2006, roaming and registration aspects are covered by W01-B05A1R and W01-B05A1N respectively. Analogous cellular aspects for inventions with emphasis on wireless data networks are also assigned W02-C03C1 codes with W01-A06C4 codes and other W01-A06 codes as appropriate. Since 2002 ... (continues unchanged)	Cell, zone, radiotelephone
Changed	W02-C03C1D	(1992- )	CELLULAR RADIO HAND-OFF	Cellular radio hand-off		Received signal strength indicators (RSSI) in general are covered by W02-G03J codes, which are also assigned for hand-off aspects as appropriate. Soft handoff in CDMA systems is indicated by additional assignment of W02-K05A7, and since 2002, by W02-C03C1G. Hand-off for non-cellular mobile radio is covered by W02-C03C3D.	Transfer
Retired	W02-C03E7	(2006-2009)	RESOURCE ALLOCATION	Resource allocation		This code is discontinued from 2010 and the subject matter transferred to W02-C03G1. It included channel allocation and similar aspects of radio communication management. When interference avoidance is the aim W02-H01J5 is also assigned.	
New	W02-C03G	(2010- )	RESOURCE ALLOCATION AND COGNITIVE RADIO SYSTEMS	Resource allocation and cognitive radio systems		This code is intended to bring together the ideas of resource allocation in radio (wireless) networks and cognitive radio. When interference avoidance is the aim W02-H01J5 is also assigned with this code or its subdivisions.	
New	W02-C03G1	(2010- )	RESOURCE ALLOCATION	Resource allocation	W02-C03E7	This code covers channel allocation and similar aspects of radio communication management. Allocation or use of channels in cognitive radio systems is covered by W02-C03G5 which takes precedence over this code.	
New	W02-C03G5	(2010- )	COGNITIVE RADIO SYSTEMS	Cognitive radio systems		This code covers cognitive radio systems, i.e. those making use of locally-unoccupied frequency allocations. Prior to 2010 this topic was chiefly covered by W01-A06F1A when wireless data networks were involved, which will continue to be assigned for channel occupancy sensing aspects.	
New	W02-D04	(2010- )	SOUND BROADCAST MONITORING AND TESTING	Sound broadcast monitoring and testing	W02-C05, W02-D	Includes testing equipment and methods for complete sound broadcast systems (including those covered by W02-E codes) or broadcast systems in general. Monitoring of sound broadcast systems for audience research purposes is covered from 2010 by W02-D04B (formerly W02-D08). Note that testing and monitoring of audio recording equipment and (sound) broadcast radio receivers is not included and is covered by W04-J codes and W03-B10A codes respectively. Testing and monitoring of television systems for broadcasting and other purposes and of interactive broadcasting systems is covered by W02-F04 codes.	
New	W02-D04A	(2010- )	TESTING	Testing	W02-C05, W02-D		
New	W02-D04A1	(2010- )	SIGNAL TESTING	Signal testing	W02-C05, W02-D	Includes checking of signal quality.	Bandwidth, bit rate, coverage, distortion, error, harmonic content, modulation depth, service area, sidebands, spectral regrowth, spurious content, THD
New	W02-D04A5	(2010- )	TESTING OF APPARATUS	Testing of apparatus	W02-C05B, W02-D	These codes cover the testing of equipment forming part of a sound broadcast system.	Switching centre
New	W02-D04A5A	(2010- )	TESTING OF APPARATUS IN BROADCAST STUDIO	Testing of apparatus in broadcast studio	W02-C05B, W02-D	Testing of audio processing related aspects such as sound mixing is also assigned W04-G codes.	Control desk, console, talkback
New	W02-D04A5B	(2010- )	TESTING OF APPARATUS AT TRANSMITTER OR REPEATER SITE	Testing of apparatus at transmitter or repeater site	W02-C05B, W02-D, W02-G01	W02-G01 or W02-G05 codes are also assigned when radio equipment is involved.	Antenna, cooling, enclosure, generator, power amplifier, power supply, tower
New	W02-D04A5X	(2010- )	OTHER SOUND BROADCAST APPARATUS TESTING	Other sound broadcast apparatus testing	W02-C05B, W02-D		
New	W02-D04B	(2010- )	AUDIENCE RESEARCH SYSTEM	Audience research system	W02-D08	Analogous systems for TV broadcast audience monitoring are covered by W02-F04B.	Tuned frequency, selected channel monitoring system, listener data acquisition

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New	W02-D04C	(2010- )	STATION OUTPUT MONITORING	Station output monitoring	W02-C05, W02-D	Covers arrangements to enable verification of scheduled transmission. Analogous systems for TV station output monitoring are covered by W02-F04C.	Airplay, FCC, log, monitor, record
New	W02-D04C1	(2010- )	MONITORING PROGRAMME OUTPUT	Monitoring programme output	W02-C05, W02-D	Includes checking adherence to schedule, timing, etc., and monitoring of automatic recorded programme transmission.	
New	W02-D04C5	(2010- )	CHECKING TRANSMISSION OF COMMERCIAL MESSAGE	Checking transmission of commercial message	W02-C05, W02-D		Sponsor, advertisement, commercial break
New	W02-D04X	(2010- )	OTHER SOUND BROADCAST SYSTEM MONITORING	Other sound broadcast system monitoring	W02-C05, W02-D		
Retired	W02-D08	(1997-2009)	AUDIENCE MONITORING	Audience monitoring		*This code is discontinued from 2010 and the subject matter transferred to W02-D04B. W02-D08 was used with W02-D01 or W02-D05 codes as appropriate. (Prior to 1997, W02-C05 was used with the relevant W02-D code.) Analogous arrangements for TV audience research are covered by W02-F04B.	
Changed	W02-E01B1	(1992- )	RELATING TO BROADCAST STATION	Relating to broadcast station		Includes station identification and radio broadcast program guides. Broadcast radio receiver aspects of program guides are covered by W03-B01C. EPG systems for TV broadcasting are covered by W02-F10E5 and TV set aspects by W03-A13J.	
Changed	W02-F04		MONITORING; TESTING	Monitoring; testing		Includes testing equipment and methods for whole system, or any component part in conjunction with that code, and also audience research systems. Note that monitoring and testing of sound broadcast systems and equipment is covered from 2010 by W02-D04 codes, and that video recording equipment monitoring/testing is covered by W04-J codes only.	Switching centre
Retired	W02-F04A5C	(1992-2009)	IN RECEIVER*	In receiver*		*This code is now discontinued and from 2010 all aspects of TV receiver testing, including production line testing and internal self-monitoring are covered by W03-A18A codes. W02-F04A5C was assigned prior to 2010 for these aspects in addition to the W03 codes.	
Changed	W02-H01C1	(2002- )	SUPPRESSION OR AVOIDANCE OF INTERFERENCE WITHIN COMMUNICATIONS EQUIPMENT	Suppression or avoidance of interference within communications equipment		This code is intended to cater for the suppression of interference generated by one part of communications equipment with another part of the same equipment, or a group of similar units assembled together, e.g. prevention at the transmitter, of interference with an associated receiver.	Self-interference
Changed	W02-H01J5	(2005- )	INTERFERENCE AVOIDANCE BASED ON FREQUENCY ALLOCATION AND NETWORK OPERATION	Interference avoidance based on frequency allocation and network operation		This code is intended to cover interference avoidance during normal network operation, and may involve channel allocation which is also assigned W02-C03G1 (W02-C03E7 prior to 2010) and interference avoidance aspects of cognitive radio systems which are also assigned W02-C03G5. Avoidance of interference at a network design stage is covered by W02-H01J1, and avoidance of interference by changing frequency, e.g. of a clock signal, in equipment is covered by W02-H01G5.	
Retired	W02-J	( -2009)	FACSIMILE	Facsimile	S06-D to S06-K	*This code is now discontinued, see S06-D to K. Includes analogous systems for still picture information. See also under application e.g. S06-C02B for electronic color separation systems. Note that digital cameras are not included, and are covered by W04-M01B1 codes.	Copy, print, scan, sheet, image, document, line, satellite weather picture system
Retired	W02-J01	(1992-2009)	SCANNING ARRANGEMENTS	Scanning arrangements	S06-D	*This code is now discontinued, see S06-D. Includes optical system, lens etc. and scanning drive (See also V07-K05), but not read/write components such as sensors, print heads, and light sources, which are covered by W02-J02 codes.	Beam, laser, expose, slit, optical magnifications
Retired	W02-J01A	(1992-2009)	OPTICS E.G. LENSES AND MIRRORS	Optics e.g. lenses and mirrors	S06-D03	*This code is now discontinued, see S06-D03.	Polygonal
Retired	W02-J01B	(1992-2009)	SCANNING DRIVE SYSTEM	Scanning drive system	S06-D04	*This code is now discontinued, see S06-D04.	Raster
Retired	W02-J01C	(1992-2009)	SYNCHRONISING, POSITION DETECTION AND ADJUSTMENT	Synchronising, position detection and adjustment	S06-D04A	*This code is now discontinued, see S06-D04A. Includes control and error compensation of scanning velocity and position.	
Retired	W02-J01X	( -2009)	OTHER SCANNING ARRANGEMENTS	Other scanning arrangements	S06-D	*This code is now discontinued, see S06-D. Includes scanner construction.	
Retired	W02-J02	(1987-2009)	RECORDING AND REPRODUCING ARRANGEMENTS	Recording and reproducing arrangements	S06 codes	*This code is now discontinued, see S06 codes. Covers methods and recording and reproducing components per se. Drive circuitry is covered by W02-J03A codes only, except when integral with component.	

Retired/Old/Current	Code	Date Range	Titles >100 chars in length (used for the STN, DII and Wila host lists)	Delphion titles (e.g. sentence format and <100 chars)	Related Items	Scope Notes	Search Terms
Retired	W02-J02A	(1992-2009)	RECORDING I.E. LINE IMAGE SENSOR, CCD ETC.	Recording i.e. line image sensor, CCD etc.	S06-D	*This code is now discontinued, see S06-D. See also U14 H01B for thin film image sensor, U13-A01 and U13-A02 for circuitry and CCD.	Reader, monolithic
Retired	W02-J02A1	(1992-2009)	SENSORS	Sensors	S06-D05	*This code is now discontinued, see S06-D05.	Photoelectric detector, thin film image sensor, multi-element array
Retired	W02-J02A1A	(1987-2009)	INTEGRAL READING CIRCUITRY	Integral reading circuitry	S06-D05A	*This code is now discontinued, see S06-D05A.	
Retired	W02-J02B	(1987-2009)	REPRODUCING I.E. PRINTING	Reproducing i.e. printing	S06 codes	*This code is now discontinued, see S06 codes. See also T04-G codes for specific printer type.	Dot matrix, pressure sensitive, magnetic printing
Retired	W02-J02B1	(1987-2009)	THERMAL	Thermal	S06-H	*This code is now discontinued, see S06-H.	Head, resistive elements, thermal transfer ink ribbon
Retired	W02-J02B2	(1992-2009)	OPTICAL	Optical	S06-E	*This code is now discontinued, see S06-E. See also T04-G for printer type and S06-A01A codes for photoconductor details, S06-A04C codes for toner details. See also V07-K01 codes for optical modulator per se.	Light valve, shutter, modulator
Retired	W02-J02B2A	(1992-2009)	LED	LED	S06-E03A2	*This code is now discontinued, see S06-E03A2.	Array
Retired	W02-J02B2B	(1992-2009)	LASER	Laser	S06-E03A3	*This code is now discontinued, see S06-E03A3. See T04-G04 for laser printing details.	
Retired	W02-J02B2X	(1992-2009)	OTHER OPTICAL PRINTING	Other optical printing	S06-E03	*This code is now discontinued, see S06-E03.	
Retired	W02-J02B3	(1992-2009)	INK JET	Ink jet	S06-G	*This code is now discontinued, see S06-G. See T04-G02 for ink jet printing details.	
Retired	W02-J02B5	( -2009)	INTEGRAL DRIVE CIRCUITRY FOR PRINTHEAD	Integral drive circuitry for printhead	S06-G03	*This code is now discontinued, see S06-G03.	
Retired	W02-J03	(1987-2009)	PICTURE SIGNAL CIRCUITS, BANDWIDTH REDUCTION, BLANKING, TRANSMISSION CONTROL	Picture signal circuits, bandwidth reduction, blanking, transmission control	S06-K07	*This code is now discontinued, see S06-K07.	
Retired	W02-J03A	(1992-2009)	CONTROL CIRCUITS, MONITORING CIRCUITS	Control circuits, monitoring circuits	S06-K07	*This code is now discontinued, see S06-K07. Used for general picture signal processing and control, including electronic magnification and blanking. Also includes color processing - use with W02-J04. For picture processing see also T01-J10B codes.	Drive circuits
Retired	W02-J03A1	(1992-2009)	IMAGE ACQUISITION	Image acquisition	S06-K07A4	*This code is now discontinued, see S06-K07A4.	Scan, read, shading compensation
Retired	W02-J03A1A	(1992-2009)	COMPENSATING FOR SENSOR CHARACTERISTICS	Compensating for sensor characteristics	S06-K07A4A	*This code is now discontinued, see S06-K07A4A.	Shading compensation
Retired	W02-J03A2	(1992-2009)	IMAGE AND DATA PROCESSING	Image and data processing	S06-K07A7	*This code is now discontinued, see S06-K07A4.	Picture signal amplifier, halftone screening, edge enhancement, noise or error suppression
Retired	W02-J03A2A	(1992-2009)	CHANGING MAGNIFICATION	Changing magnification	S06-K04A7B	*This code is now discontinued, see S06-K04A4B.	
Retired	W02-J03A2B	(1992-2009)	COMPOSING AND ELECTRONIC LAYOUT CONTROL	Composing and electronic layout control	S06-K04A7B	*This code is now discontinued, see S06-K04A4B.	
Retired	W02-J03A3	(1992-2009)	IMAGE OUTPUT	Image output	S06-K04A7C	*This code is now discontinued, see S06-K04A4C.	Write, print, display
Retired	W02-J03A4	(1992-2009)	USER INTERFACE I.E. CONTROL INPUT, DISPLAYS	User interface i.e. control input, displays	S06-K07A1	*This code is now discontinued, see S06-K07A1.	Operator warning device, mode setting.
Retired	W02-J03A5	(1992-2009)	MONITORING	Monitoring	S06-K07B	*This code is now discontinued, see S06-K07B. Includes self-testing, error correcting and resetting, maintenance.	Fault indication
Retired	W02-J03A7	(1992-2009)	CONTROL OF OPERATION	Control of operation	S06-K07A	*This code is now discontinued, see S06-K07A. Includes general control system details and external control e.g. by personal computer. Use with corresponding interface code.	Mode control, non-image memory, start up, standby
Retired	W02-J03A7A	(1992-2009)	COPY SHEET COUNTING	Copy sheet counting	S06-K07A5	*This code is now discontinued, see S06-K07A5.	
Retired	W02-J03A9	(1987-2009)	OTHER FACSIMILE CIRCUITS	Other facsimile circuits	S06-K07	*This code is now discontinued, see S06-K07.	
Retired	W02-J03B	(1992-2009)	BANDWIDTH REDUCTION, ENCODING E.G. MH, RUN-LENGTH ETC.	Bandwidth reduction, encoding e.g. MH, run-length etc.	S06-K07A4D	*This code is now discontinued, see S06-K07A4D. See U21-A05 codes for coding in general, W04-P01A codes for TV signal compression, and W02-G04A codes for bandwidth reduction in general.	
Retired	W02-J03B1	(1992-2009)	ENCODING	Encoding	S06-K07A4D	*This code is now discontinued, see S06-K07A4D.	Compression, data reduction, white block skipping
Retired	W02-J03B2	(1987-2009)	DECODING	Decoding	S06-K07A4D	*This code is now discontinued, see S06-K07A4D.	Regenerate
Retired	W02-J03C	(1992-2009)	TRANSMISSION DETAILS	Transmission details	S06-K07C	*This code is now discontinued, see S06-K07C. Includes input-output arrangements, telephone interface and secrecy systems (with W02-L). Search W01-C05B1 and W01-C01H for telephone aspects also. For ISDN aspects see W01-C05B7. For LAN aspects see W01-A06 codes.	Synchronising, privacy, transmission standards (e.g. G2, G3, G4 etc.)
Retired	W02-J03C1	(1992-2009)	SIGNAL PROCESSING, PREPARING DATA FOR TRANSMISSION, MODULATION, AND CODING	Signal processing, preparing data for transmission, modulation, and coding	S06-K07C3	*This code is now discontinued, see S06-K07C3.	Scrambling
Retired	W02-J03C2	(1992-2009)	DETERMINING AND SETTING TYPE OF TRANSMISSION LINK, MODE, AND PRIORITY	Determining and setting type of transmission link, mode, and priority	S06-K07C4	*This code is now discontinued, see S06-K07C4. Includes detecting type of receiving station (e.g. G3, G4).	Autodialler, modem

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Retired	W02-J03C3	(2006-2009)	MONITORING, ERROR CHECKING	Monitoring, error checking	S06-K07C6	*This code is now discontinued, see S06-K07C6.	
Retired	W02-J03C4	(1992-2009)	REMOTE CONTROL/MONITORING OF A FACSIMILE	Remote control/monitoring of a facsimile	S06-K07C6	*This code is now discontinued, see S06-K07C6. E.g. monitoring from host over network, etc.. See also T04-G10E if for a printer, or S06-A14E if for a copier.	
Retired	W02-J03C5	(1992-2009)	RECEPTION DETAILS	Reception details	S06-K07C5	*This code is now discontinued, see S06-K07C5.	Automatic answering
Retired	W02-J03C6	(1992-2009)	SECURITY	Secrecy	S06-K07C7	*This code is now discontinued, see S06-K07C7.	password, data encryption
Retired	W02-J03C6A	(1992-2009)	SCRAMBLING OF SIGNALS, ETC.	Scrambling of signals, etc.	S06-K07C7	*This code is now discontinued, see S06-K07C7.	
Retired	W02-J03C6B	(1992-2009)	DOCUMENT HANDLING	Document handling	S06-K07A3	*This code is now discontinued, see S06-K07A3. Includes sealing of received documents in envelopes.	
Retired	W02-J03C7	(1997-2009)	INTERFACE WITH TELEPHONE	Interface with telephone	S06-K07C2A	*This code is now discontinued, see S06-K07C2A. Also includes combined facsimile-telephone. See W01-C01P4. Also W01-C05B3H.	
Retired	W02-J03C8	(1992-2009)	INTERFACE WITH COMPUTER	Interface with computer	S06-K07C2D	*This code is now discontinued, see S06-K07C2D. See also T01-C03B.	
Retired	W02-J03C9	(1992-2009)	OTHER TRANSMISSION DETAILS	Other transmission details	S06-K07C	*This code is now discontinued, see S06-K07C. Includes interface to other independent device e.g. copier, but not composite unit - see W02-J07.	Multimedia
Retired	W02-J03D	( -2009)	IMAGE MEMORY	Image memory	S06-K07A4	*This code is now discontinued, see S06-K07A4. Refers to image memory only, but not external memory e.g. computer memory. See also T01-J10A2 for image memory management.	Stores
Retired	W02-J04	( -2009)	COLOR SYSTEMS	Color systems	S06-K01	*This code is now discontinued, see S06-K01. Used for any aspect of color system, with other codes as appropriate.	
Retired	W02-J05	(1992-2009)	CONSTRUCTIONAL DETAILS	Constructional details	S06-K03	*This code is now discontinued, see S06-K03.	Housing, casing, cooling/ventilating arrangements, transport system drive, cutter
Retired	W02-J05A	(1997-2009)	SHEET FEEDING	Sheet feeding	S06-K02	*This code is now discontinued, see S06-K02. Includes original document and recording/copy sheets. Also includes page turning mechanism.	Paper roll, paper tray, document holder
Retired	W02-J05B	(2006-2009)	FINISHING APPARATUS	Finishing apparatus	S06-K05	*This code is now discontinued, see S06-K05. Includes stapling, binding, laminating, and cutting, etc. of output sheets. See also S06-A18 if for copier, and/or T04-G06B of for printer.	
Retired	W02-J05C	(1997-2009)	CONNECTORS, PHYSICAL ASPECTS OF CIRCUITS	Connectors, physical aspects of circuits	S06-K03F	*This code is now discontinued, see S06-K03F.	
Retired	W02-J05D	(2007-2009)	RECYCLING SYSTEMS	Recycling systems	S06-K04	*This code is now discontinued, see S06-K04. See also S06-A17 for copier, and/or T04-G11B for printer. See also X25-W04 for electrical aspects of recycling system in general.	
Retired	W02-J06	(1997-2009)	POWER SUPPLIES	Power supplies	S06-K03G, S06-K07A2	*This code is now discontinued, see S06-K03G/S06-K07A2. Includes mains and battery supplies for all types of units including portable systems. Also includes protection circuits. See U24-D, U24-E, U24-F and U24-X codes.	
Retired	W02-J07	(1997-2009)	COMBINED UNIT WITH FACSIMILE, COPIER, AND/OR PRINTER FUNCTIONS	Combined unit with facsimile, copier, and/or printer functions	S06-K99F1	*This code is now discontinued, see S06-K99F1.	
Retired	W02-J08	(1992-2009)	FACSIMILE COMMUNICATION SYSTEMS	Facsimile communication systems	S06-K07C	*This code is now discontinued, see S06-K07C.	
Retired	W02-J08A	(1992-2009)	STORE AND FORWARD EXCHANGE	Store and forward exchange	S06-K07C2B	*This code is now discontinued, see S06-K07C2B.	
Retired	W02-J08C	(1992-2009)	ISDN INTERFACE	ISDN interface	S06-K07C2C	*This code is now discontinued, see S06-K07C2C. See also W01-C05B7 codes for general aspects of ISDN.	
Retired	W02-J09	( -2009)	OTHER FACSIMILE DETAILS	Other facsimile details	S06-K	*This code is now discontinued, see S06-K. Includes sheet marking and stamping.	Multiple facsimile system, exchange, coin freed
Retired	W02-J10	(1992-2009)	ANALOGOUS SYSTEMS	Analogous systems	S06-K99G	*This code is now discontinued, see S06-K99G. For medical stimuable sheet phosphor systems see also S05-D02A5C. For electronic blackboard (previously coded in W02-J09) see also W04-W05.	Radiation imaging
Retired	W02-J11	(2006-2009)	PREVENTION OF ILLEGAL PHOTOCOPIY TRANSMISSION/RECEPTION	Prevention of illegal photocopy transmission/reception	S06-K07A3	*This code is now discontinued, see S06-K07A3. See S06-A14F for prevention of illegal photocopying.	
<b>W03</b>							
Changed	W03-A02B3	(2007- )	CHANNEL SWITCHING ARRANGEMENTS	Channel switching arrangements		This code covers arrangements for changing the channel to which a TV set is tuned, either under user control or automatically.	
New	W03-A11A5	(2010- )	TV DISPLAY UPSCALING	TV display upscaling		This code covers arrangements for upscaling a signal to improve resolution, e.g. to provide a 100 Hz field rate from an original 50 Hz rate in the received signal, or to increase the effective number of pixels. Upscaling for video recording and reproducing equipment is covered by W04-F01H3C.	Flicker reduction, interpolation

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Changed	W03-A13J	(2002- )	ELECTRONIC PROGRAMME GUIDE SYSTEMS	Electronic programme guide systems	W03-A13G, W03-A16C	This code is regarded as the main one for EPG aspects in receivers and set top boxes. See W03-A13G also for specific OSD aspects of programme guide systems in TV receivers (this code was used more generally for this topic prior to 2002). Interactive aspects of guide systems will continue to be assigned W03-A16C5E as appropriate. Systems or 'head-end' aspects are covered by W02-F10E5. Display of program guide information in radio receivers is covered by W03-B01C.	
Changed	W03-A18A3	(1997- )	PREVENTING VIEWING BELOW MINIMUM DISTANCE	Preventing viewing below minimum distance		See also S03-C, W06-A02, W06-A05, and W06-A06 codes for detection system details. From 2010 the scope of this code is enlarged to include determination of viewer direction or location. Arrangements for orienting a receiver or display based on this determination are also assigned W03-A18A9. Viewer or user identification is covered by W03-A18A6.	
New	W03-A18A8A	(2010- )	SOFTWARE UPDATING	Software updating		This code covers arrangements for downloading or otherwise inputting data to modify the program controlling operation of a TV receiver or analogous equipment.	OTA, over the air
Changed	W03-A21		VIDEO DISPLAY FOR NON-TV RECEIVER APPLICATION	Video display for non-TV receiver application		This code is only assigned in conjunction with other W03-A codes used to indicate novel aspects of video displays that are analogous to TV receivers but are intended for other applications. For example, a display for radar equipment (also W06-A04C) with a novel gamma control circuit would be assigned W03-A04A and W03-A21. Note that video displays that are suitable for other applications and for TV receivers are not assigned W03-A21.	
Changed	W03-B01C	(1992- )	TUNING AND RELATED DISPLAYS	Tuning and related displays		Includes scales, illumination etc., and digital read-out of received frequency. (For general application, coded in U25-K). Use of tuning display to present other information is also included, e.g. for RDS (also assigned W03-B08 codes) or for DAB program guide (EPG) aspects (also assigned W03-B06). Program guide display in TV receivers is covered by W03-A13J.	
Changed	W03-B09		OTHER BROADCAST RADIO RECEIVER ASPECTS	Other broadcast radio receiver aspects		This code was used for digital receivers prior to 2002, now assigned W03-B07 codes, and for testing, control and interfacing aspects until 2010, which are now assigned W03-B10 codes.	Power supply
New	W03-B10	(2010- )	BROADCAST RADIO RECEIVER TESTING, CONTROL AND INTERFACING	Broadcast radio receiver testing, control and interfacing	W02-C05B, W03-B	These codes cover testing of broadcast radio receivers and also control in a general sense, rather than control of a specific parameter as part of normal receiver operation.	
New	W03-B10A	(2010- )	BROADCAST RADIO RECEIVER TESTING	Broadcast radio receiver testing	W02-C05B, W03-B	Testing of a specific part of a broadcast receiver is indicated by co-assignment of the appropriate W03-B code. Testing of broadcast radio systems is covered by W02-D04 codes.	
New	W03-B10A1	(2010- )	BROADCAST RADIO RECEIVER SELF-TESTING	Broadcast radio receiver self-testing	W02-C05B, W03-B	Includes monitoring arrangements for detecting e.g. low battery or fault condition.	
New	W03-B10A5	(2010- )	BROADCAST RADIO RECEIVER TESTING USING EXTERNAL EQUIPMENT	Broadcast radio receiver testing using external equipment	W02-C05B, W03-B	Includes monitoring and testing using external test equipment, e.g. for production line testing or repair.	
New	W03-B10C	(2010- )	BROADCAST RADIO RECEIVER CONTROL	Broadcast radio receiver control	W03-B09	This code covers control of broadcast radio receivers in a general sense, and not control of a specific parameter as part of normal receiver operation, such as automatic frequency control (W03-B01B5) or automatic gain control (W03-B02A).	
New	W03-B10E	(2010- )	BROADCAST RADIO RECEIVER INTERFACING	Broadcast radio receiver interfacing	W03-B09	This code covers arrangements for interfacing with broadcast radio receivers including hardware and software aspects. Interfacing with TV receivers is covered by W03-A18C codes and with AV equipment in general by W03-G05C codes.	
New	W03-B10X	(2010- )	OTHER BROADCAST RADIO RECEIVER CONTROL AND INTERFACING ASPECTS	Other broadcast radio receiver control and interfacing aspects	W03-B09		
Changed	W03-C05	(1992- )	TONE CONTROLS AND EQUALIZERS	Tone controls and equalizers		See U25-F05 and U24-C05D codes for further circuit details.	Fader
Changed	W03-C05C	(1992- )	ANALOGUE EQUALIZER CIRCUITS	Analogue equalizer circuits		This code includes analogue graphic equalizers. Prior to 1992, audio equalizing was also routinely coded in W04-G, which is now only assigned for general applications.	

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Changed	W03-G08	(2010- )	AV EQUIPMENT USED IN A VEHICLE	AV equipment used in a vehicle		The title of this code has been changed to better reflect its actual use. W03-G08 includes in-car entertainment systems, for which X22-J13 is also assigned, and AV equipment used in any other kind of vehicle for which other codes are also assigned as appropriate, such as W06-B01C7 for aircraft in-flight entertainment. Specific W03 and W04 codes are also assigned depending on equipment type. Note that car radios with no other aspect are not included here and are covered by W03-B03 codes.	
<b>W04</b>							
New	W04-F01H3C	(2010- )	UPSCALING OF VIDEO SIGNALS	Upscaling of video signals		This code covers upscaling, especially of reproduced video, to provide e.g. improved resolution on an HD display device. Codes for recording and reproducing equipment are also assigned as appropriate, e.g. W04-C10A3 for DVD video players.	
Changed	W04-M01C1A	(1992- )	LENSES PER SE	Lenses per se		Covers novel aspects only of single lenses and lens groups such as zoom lenses. Search with W04-M01B5 for lens or lens array integral with image pick-up element. See V07 for lenses with electrically-controlled variable parameters. Note that 'lens systems', 'lens barrels' and 'lens tubes' without any novelty in lenses themselves are not included and are covered by W04-M01C1 with W04-M01G1B for constructional details such as lens mounting arrangements.	Abbe number, aberration, concave, convex, chromatic, coating, focal length, glass, material composition, plano-concave, plano-convex, plastics, power, refractive power, V number
Changed	W04-N05C	(2010- )	IMAGE GENERATION AND MANIPULATION, INCLUDING SPECIAL EFFECTS EQUIPMENT	Image generation and manipulation, including special effects equipment		These codes cover the generation and manipulation of images for special effects or other purposes, such as image correction. Generation of images by video cameras is not included, being covered by W04-M01 codes. Manipulation of images in TV receivers is not included and is covered by W03-A13E codes.	
Changed	W04-P01A1	(1992- )	MOVEMENT DETECTION SYSTEM	Movement detection system		This code is used as a general code for detection and estimation of movement and may thus be used for applications such as automatic alarm actuation. (See also W02-F01, W05-B01C codes). When specific to hybrid or predictive video coding W04-P01A4A and W04-P01A5A are respectively assigned instead of W04-P01A1.	
Changed	W04-P01A4A	(2010- )	HYBRID CODING MOTION DETECTION AND ESTIMATION	Hybrid coding motion detection and estimation		Motion detection or estimation for purely predictive coding is covered by W04-P01A5A and for general and non-coding purposes by W04-P01A1.	
Changed	W04-P01A5A	(2010- )	PREDICTIVE CODING MOTION DETECTION AND ESTIMATION	Predictive coding motion detection and estimation		Motion detection or estimation for hybrid coding is covered by W04-P01A4A and for general and non-coding purposes by W04-P01A1.	
Changed	W04-X01A5	(1992- )	FITNESS TRAINING EQUIPMENT	Fitness training equipment		Includes exercise bikes, rowing machines, treadmills and similar equipment. Analogous equipment for medical purposes, e.g. physiotherapy, is covered by S05-A05.	Bicycle, brake, mechanical resistance, weights
Changed	W04-X01A9	(1992- )	OTHER SPORTS TRAINING EQUIPMENT	Other sports training equipment			
Changed	W04-X02C	(1983- )	VIDEO GAMES	Video games		For 'arcade' game aspect search with W04-X02A. For control of visual display units see T04-H and W03 codes also. For manual control arrangements, such as joystick, see T04-F codes and for computer aspects, including networked games, see T01-J and T01-N codes.	Program, image, memory, memory card, screen, arcade game, home video game, console, controller, sound effect generator, software, computer games, online games
<b>W05</b>							
Changed	W05-D06F	(2005- )	DATA NETWORK-BASED TRANSMISSION	Data network-based transmission		This code covers the use of data networks as a transmission medium, other than internet-based systems which are covered by W05-D06E. W01-A06 codes are also assigned for novel data network aspects.	CAN, controller area network, EIB, european installation bus, field bus, KNX, LAN, local area network, profibus, VAN, vehicle area network
<b>W06</b>							
Changed	W06-A04B5A	(2002- )	ANIMALS AND LIVESTOCK	Animals and livestock		Includes monitoring of livestock, pets and other animals. See also X25-N02 for monitoring livestock. See also X27-H03 for RF transponders used in pet access control collars and pet monitoring.	Dog, cat, pet, cattle, cow, sheep, horse, pig
<b>W07</b>							

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Changed	W07-F05	(1992- )	MINE SWEEPING	Mine sweeping		Includes all aspects of explosives detection and making safe. Includes detection of roadside improvised explosive devices and mine or depthcharge detection and clearing. See W06-C01 codes for on-board ship aspects. Degaussing is covered by V02-D, W07-F03, and W06-C09. See S03 codes for novel sensing arrangements per se.	
Changed	W07-G	(1992- )	NIGHT VISION EQUIPMENT	Night vision equipment		This code is used for all night vision applications. See also V05 for image intensifier tube aspects. This code can also be applied for other vision enhancement systems, including daytime image enhancement and thermal or IR imaging (see also W04-M01E codes for thermal imaging camera details per se).	
<b>X11</b>							
Changed	X11-A		STEAM TURBINE PLANT	Steam turbine plant			Coal-fired power plant
New	X11-A08	(2010- )	ENVIRONMENTAL PROTECTION	Environmental protection		Includes arrangements for reducing carbon footprint and improving emissions, such as chimney smoke filters and scrubbers for capturing sulphur emissions from coal fired power stations, e.g. carbon capture arrangements.	Flue gas desulphurisation, carbon capture, waste gas scrubbing
Changed	X11-B09		OTHER DETAILS	Other details		Includes details of osmotic power or salinity gradient power (also covered by X15-C). From 2005, tidal flow base electric power generation is covered by X15-C codes.	
New	X11-C08	(2010- )	ENVIRONMENTAL PROTECTION	Environmental protection		Includes arrangements for reducing carbon footprint and improving emissions, e.g. catalytic converters for exhaust gases.	Catalytic converter
Changed	X11-U	(1997- )	ELECTRIC MACHINES CHARACTERISED BY APPLICATIONS	Electric machines characterised by applications		These codes are used in conjunction with other X11 codes as appropriate.	
Changed	X11-U01A	(1997- )	STEAM TURBINE GENERATOR	Steam turbine generator		See X11-A codes for details of steam turbine plants, and X11-J codes for constructional details.	
Changed	X11-U01C	(1997- )	GAS TURBINE GENERATOR	Gas turbine generator		See X11-C01 for details of gas turbine generator, and X11-J codes for constructional details.	
Changed	X11-U01D	(1997- )	IC ENGINE GENERATOR	IC engine generator		See X11-C02 for details of IC engine plant, and X11-J codes for constructional details.	
Changed	X11-U01E	(1997- )	WIND TURBINE GENERATOR	Wind turbine generator		See X15-B codes for details of wind power generation, and X11-J codes for constructional details of generator.	
Changed	X11-U01M	(2002- )	MICROTURBINE GENERATOR	Microturbine generator		See X11-C15 for details of microturbine plants, and X11-J codes for constructional details.	
<b>X15</b>							
Changed	X15		NON-FOSSIL FUEL POWER GENERATING SYSTEMS	Non-fossil fuel power generating systems		See X11-A, X11-B and X11-C codes for steam turbine plants, coal-fired power plants, hydroelectric plants, gas turbine plants, IC engine plants, cogeneration plants, etc. Nuclear power generation details are covered by X14 only. See also X11-J codes for in-depth constructional details of the generators, e.g. stator, rotor, windings, insulation, etc. See also X12 codes for details of power distribution to e.g. power transmission networks (powergrids).	
Changed	X15-A		SOLAR POWER	Solar power		X15-A codes cover all details of solar batteries, solar power, solar powered charging of batteries, when there is some novelty/importance regarding the solar aspect. Includes power generation from solar rays as well as other optical radiation, photoelectrochemical and thermophotovoltaic actions. If details about e.g. the semiconductor materials used in the cell (photolayers, etc), the photoreceivers, the manufacture/packaging of the cells, etc, U12-A02A codes should also be applied. See also X15-A04 or X15-A05 to highlight small scale or large scale power generation, respectively. Photoelectrochemical and dye-sensitised solar cells are also coded under X16-A04. Chargers using solar energy to charge a battery is also coded under X16-G02A.	
Changed	X15-A01A	(2005- )	HEAT COLLECTING PANELS	Heat collecting panels		Includes panels provided with pipes carrying liquid that is heated by the sun. Direct conversion panel details are in X15-A02.	Collectors, heat pipes
New	X15-A01C1	(2010- )	MIRRORS	Mirrors			Focussing mirror, parabolic mirror, parabolic troughs
New	X15-A01C2	(2010- )	LENSES	Lenses			Focussing lenses, Fresnel lenses
New	X15-A01C3	(2010- )	TRACKING ARRANGEMENTS	Tracking arrangements		Includes heliostats.	

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New	X15-A01C4	(2010- )	WORKING FLUIDS	Working fluids		Includes arrangement details of working fluids such as water, molten salts, etc.	
New	X15-A01C9	(2010- )	OTHER CONCENTRATORS DETAILS	Other concentrators details			
Changed	X15-A02		DIRECT CONVERSION PHOTOVOLTAIC PANEL DETAILS ; SOLAR/PHOTOVOLTAIC CELLS DETAILS	Direct conversion photovoltaic panel details ; solar/photovoltaic cells details		For more detailed breakdown of solar cells such as construction and their manufacture, see U12-A02A codes.	
Changed	X15-A02B	(1983- )	ASSEMBLIES OF CELLS	Assemblies of cells		Includes details of interconnections between individual cells. Details of the solar panel or module are covered by X15-A02C.	
Changed	X15-A02C	(2002- )	SOLAR / PHOTOVOLTAIC PANEL DETAILS	Solar / photovoltaic panel details		Includes mechanical details of solar / photovoltaic panels, modules or tiles, including anti-reflective coating, glass cover to protect the cells from the elements, cleaning system for removing dust (sand) and dirt from the surface of the solar / photovoltaic panels. Also includes interconnections between panels. Mechanical details of roof structures are not included. Details of single cells and assemblies of cells (including interconnections between individual cells) are coded under X15-A02A and X15-A02B, respectively.	Solar cell modules, panels, tiles, anti-reflective coating
Changed	X15-A02D1	(2005- )	DYE-SENSITISED SOLAR CELL	Dye-sensitised solar cell		Includes the use of an organic dye and electrolyte for absorbing solar energy and hole transport.	DSSC, Gratzel cells
New	X15-A02X	(2010- )	OTHER SOLAR / PHOTOVOLTAIC PANELS / CELLS DETAILS	Other solar / photovoltaic panels / cells details		Includes wiring to solar battery (also coded by V04 codes), and other details not covered by other X15-A02 codes.	
Changed	X15-A04	(2002- )	SMALL SCALE SOLAR POWER GENERATION	Small scale solar power generation		Covers generation of electricity, for example, to power watches, calculators, etc. Also includes domestic or micro installations. This code is used in conjunction with other X15-A codes.	
New	X15-A05A	(2010- )	SOLAR TOWER; SOLAR CHIMNEY	Solar tower; solar chimney		Includes use of greenhouse structure to heat air to create updraft in tower containing turbines to generate power.	
New	X15-A05B	(2010- )	SOLAR STIRLING ENGINE	Solar Stirling engine		Includes use of concentrated solar energy as heat source within engine.	
New	X15-A05H	(2010- )	HYBRID/COMBINATION PLANT	Hybrid/Combination plant		Includes solar thermal plants that are combined with other (including fossil fuel-based) heat or electricity generating equipment to cope with overcast skies or night operation.	
New	X15-A05X	(2010- )	OTHER LARGE SCALE SOLAR POWER GENERATION	Other large scale solar power generation			
New	X15-A08	(2010- )	CONTROL, MONITORING AND TESTING	Control, monitoring and testing		Includes control, monitoring and testing details of solar and photovoltaic cells, solar heat collecting devices and concentrators. This code is used in conjunction with other X15-A codes as appropriate.	
Changed	X15-B01		MOTORS	Motors		Constructional details, e.g. gearing systems, clutches, cooling and ventilating systems, manufacture details, rotors and stators details, etc, are also covered by X11-J codes. Blade details are covered by X15-B01C.	
Changed	X15-B01A	(1987- )	TURBINES	Turbines			Vanes, windmills, drives
New	X15-B01A5	(2010- )	HORIZONTAL TURBINES	Horizontal turbines			
New	X15-B01A6	(2010- )	VERTICAL TURBINES	Vertical turbines			
New	X15-B01C	(2010- )	BLADE DESIGN; BLADE MATERIAL	Blade design; blade material		Includes constructional details of blades, including design and materials of blades per se.	
Changed	X15-B05	(2006- )	WIND TURBINE CONTROL	Wind turbine control		Includes electrical aspects only. Includes blade pitch control, control of blade angle, noise emission monitoring, etc.	Speed control
Changed	X15-C		SEA POWER	Sea power		Includes use of heat differential between different depths. Hydroelectric power generation using water turbines driven by river flow or river falls is coded under X11-B only. Details of power plant, e.g. turbines, blades, etc, are also covered under X11-B and X11-J codes. Details of osmotic power or salinity gradient power are covered by both X11-B09 and X15-C.	Ocean currents
New	X15-C01A	(2010- )	WAVE ENERGY CAPTURE METHODS	Wave energy capture methods			
New	X15-C01A1	(2010- )	POINT ABSORBERS; BUOYS	Point absorbers; Buoys		Includes floating structure with components that move relative to each other due to wave action.	Salter duck (RTM), Edinburgh duck (RTM), buoyant moored device
New	X15-C01A2	(2010- )	ATTENUATORS; SURFACE FOLLOWING	Attenuators; surface following		Includes long multisegment floating structures oriented parallel to the direction of the waves that flex at the segments and drive hydraulic pumps or other converters.	Hinged contour device, Pelamis (RTM)

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New	X15-C01A3	(2010- )	TERMINATOR DEVICES; OSCILLATING WATER COLUMNS	Terminator devices; oscillating water columns		Includes devices that extend perpendicular to the direction of wave propagation and capture or reflect the power of the wave.	OWC
New	X15-C01A4	(2010- )	OVERTOPPING DEVICES	Overtopping devices		Includes reservoirs that are filled by incoming waves to levels above the average surrounding ocean and where gravity causes the water released to fall back and drive hydro turbines.	
New	X15-C01A9	(2010- )	OTHER WAVE ENERGY CAPTURE METHODS	Other wave energy capture methods			
New	X15-C01B	(2010- )	INSTALLATION LOCATION	Installation location			
New	X15-C01B1	(2010- )	ON-SHORE INSTALLATION	On-shore installation			
New	X15-C01B2	(2010- )	NEAR-SHORE/OFF-SHORE INSTALLATION	Near-shore/Off-shore installation			
New	X15-C01C	(2010- )	POWER TAKE-OFF	Power take-off		Includes details of power take-offs such as hydraulic ram, elastomeric hose pump, pump-to-shore, hydroelectric turbine, air turbine and linear electrical generator.	
New	X15-C02A	(2010- )	TIDE ENERGY PLANT TYPE	Tide energy plant type			
New	X15-C02A1	(2010- )	TIDAL STREAM SYSTEMS	Tidal stream systems			
New	X15-C02A2	(2010- )	BARRAGES	Barrages			
New	X15-C02A3	(2010- )	TIDAL LAGOONS	Tidal lagoons			
New	X15-C02A9	(2010- )	OTHER TIDE ENERGY PLANT TYPES	Other tide energy plant types			
New	X15-C02B	(2010- )	NOVEL TURBINE ARRANGEMENTS	Novel turbine arrangements			
New	X15-C03	(2010- )	CONTROL, MONITORING AND TESTING	Control, monitoring and testing		Includes control, monitoring and testing details of either wave power and/or tide energy plants. This code is used in conjunction with other X15-C codes as appropriate.	
Changed	X15-D	(1997- )	THERMOELECTRIC POWER GENERATION	Thermoelectric power generation	X15-X	Includes details of thermoelectric generators that convert heat directly into electricity. Details of thermoelectric devices applied to refrigeration using the Peltier effect are coded under X27-F02B1 only. See also U14-E codes.	Thermovoltaic elements
Changed	X15-E	(1997- )	BIOMASS, BIOFUEL AND WASTE FUEL COMBUSTION POWER GENERATION	Biomass, biofuel and waste fuel combustion power generation		Includes electrical aspects only. Biofuels, including their production, are covered by CPI codes.	
New	X15-G	(2010- )	GEOTHERMAL POWER	Geothermal power	X15-X	Includes generation of electricity from steam produced by heating water pumped down to underground hot rocks. Also includes use of geothermal energy for water heating e.g. to heat buildings.	
New	X15-H	(2010- )	PROFITING FROM WASTE HEAT	Profiting from waste heat		Includes waste heat recovery arrangements, e.g. for recovering heat from sewage or waste water for use in water heating (see X27-E03) e.g. for shower or dishwasher. See X11-C04 instead for combined heat and power plants per se.	
Changed	X15-X		OTHER NON-CONVENTIONAL POWER GENERATION	Other non-conventional power generation		From 2010 geothermal plants are transferred to X15-G. Includes power generation systems, e.g. transducers, etc., using vehicular traffic flow, animal or human traffic flow, etc., to generate electricity.	
<b>X21</b>							
Changed	X21-A01M	(2002- )	OTHER ELECTRIC VEHICLES	Other electric vehicles		Includes ridden electrically propelled mower (see also X27-A01A) as well as electric ski cycles and electric snowmobiles.	
Changed	X21-A02A	(2002- )	TRANSMISSION SYSTEM AND ITS CONTROL	Transmission system and its control		Includes control of clutch, gear ratio and general transmission details.	Gearing, Clutch, Drive shafts
Changed	X21-A03A	(1997- )	(ELECTRO)MECHANICAL	(Electro)mechanical		Also includes mechanical friction brakes with additional electrical details.	ABS, anti-lock braking
Changed	X21-A05	(2010- )	SAFETY; MONITORING; INSTRUMENTATION	Safety; monitoring; instrumentation		Includes protective arrangements, anti-collision systems and instrumentation for vehicle dashboard.	
Changed	X21-C02	(1997- )	PASSENGER COMPARTMENT AIR CONDITIONING/VENTILATION SYSTEMS	Passenger compartment air conditioning/ventilation systems		Includes passenger compartment air-conditioning, cooling, ventilating and air treatment arrangements.	
New	X21-K	(2010- )	MULTIPLEXING/NETWORKING/COMMUNIC ATIONS	Multiplexing/networking/communica tions	X21-X	Includes all multiplexing, networking and communications systems present in an electric vehicle (intra-vehicle), as well as communication between electric vehicles (inter- vehicle), and between vehicles and the roadside. Includes electric vehicle telephones and handsfree systems (see also W01 codes).	Data transmission, LAN, local area network, WAN, wide area network, Bluetooth, CAN bus, controlled area network, bus, ethernet, VAN, UART, universal asynchronous receiver/transmitter
<b>X22</b>							
Changed	X22-A02F	(2005- )	FUEL ADDITIVE/TREATMENT SYSTEMS	Fuel additive/treatment systems		Fuel additive/treatments to improve combustion. Includes water/steam injection and fuel ionising arrangements.	Steam, water, magnetic, ultrasonic, economiser
New	X22-A17	(2010- )	WASTE HEAT RECOVERY	Waste heat recovery	X22-A09	Includes engine exhaust heat recovery systems, e.g. for passenger compartment heating. See X22-F03 also if exhaust heat is being converted into auxiliary supply of electric power.	

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New	X22-A20G	(2010- )	AIR	Air		Includes engines that are capable of being driven completely or partially by compressed air.	
Changed	X22-B03E	(2005- )	EMERGENCY SIGNALLING DEVICES	Emergency signalling devices		Includes portable emergency services flashing lights and emergency sirens; search- or spot-light mounted on vehicle roof and electrical details of warning triangle (see also T07-X) to be placed on the road before scene of an accident or broken down vehicle. For mechanical details of emergency signalling devices see Q14-C05 instead.	
Changed	X22-B03H	(2005- )	HORNS	Horns		For mechanical details of vehicle horns see Q14-C04 instead.	
Changed	X22-B05	(1992- )	ILLUMINATED DISPLAYS FOR OTHER DRIVERS	Illuminated displays for other drivers	X22-B09	Includes illuminated number plates and displays conveying e.g. "Thank You", "Assistance required" or other messages, e.g. to help diffuse road rage situation. Also includes illuminated hub caps and illuminated decorative emblems.	Bus destination sign, illuminated licence plate
Changed	X22-J08	(1987- )	SUN VISORS; SUN ROOF	Sun visors; sun roof	X22-J	Includes obstruction detection and roof open/close motors.	Controllers, convertible tops, vanity mirror lights
New	X22-J11C	(2010- )	VEHICLE SPECIFIC CLOTHING	Vehicle specific clothing		Includes electrical details of all vehicle specific clothing. See X22-P01 and X22-P02 for bicycle and motorcycle wearables. See Q14-C16 for mechanical details of vehicle specific clothing.	Helmets, jackets, gloves, electric heating, LED, lighting, wearable
New	X22-J20	(2010- )	VEHICLE STANDS AND SUPPORTS	Vehicle stands and supports	X22-J99	Includes on-board kick-stands for bicycles or motorcycles (see also X22-P01 or X22-P02 respectively), as well as electrical details of off-board stands and supports for parking cycles. For mechanical details of e.g. cycle stands see Q14-J instead. For parking fee charging details see T05 codes.	Holder, support, rack, stand, kickstand, parking, lock
Changed	X22-P05	(1992- )	COMMERCIAL	Commercial		Includes non-specific delivery vehicles	
New	X22-P05H	(2010- )	ROAD CLEANING VEHICLES	Road cleaning vehicles	X22-J05X	Includes road sweepers and snow ploughs (see also X25-U05).	
New	X22-P05R	(2010- )	REFUSE COLLECTION VEHICLES	Refuse collection vehicles	X22-J05X	Includes rubbish trucks.	
Changed	X22-P08	(1992- )	RECREATION	Recreation			Go-kart, caravan, RV, snowmobile, ATV
Changed	X22-X06H	(2010- )	STEERING ANGLE/TORQUE SENSOR	Steering angle/torque sensor		Includes steering angle and torque sensing.	
Changed	X22-X06K	(1997- )	ON-BOARD WEIGHING SYSTEM	On-board weighing system		See X22-P05B for lorry on-board load/cargo weighing arrangements.	
New	X22-X06T	(2010- )	TEMPERATURE SENSOR	Temperature sensor	X22-X06X	Includes non-engine temperature sensing e.g. for control of vehicle air conditioner (see also S03-B codes). For engine related temperature sensing see X22-A05F codes instead.	
Changed	X22-X06X	(2005- )	OTHER NON-ENGINE RELATED MEASUREMENTS/SENSORS	Other non-engine related measurements/sensors		Includes other specific measurements and sensors.	
Changed	X22-X16	(2010- )	VEHICLE MAINTENANCE EQUIPMENT AND SERVICE MONITORING; VEHICLE TESTING	Vehicle maintenance equipment and service monitoring; Vehicle testing		Includes on-board aspects associated with e.g. fleet maintenance, vehicle servicing equipment (see X22-A16 for engine servicing equipment) and remote service monitoring (see X22-E10 for on-board service required warning). Includes off-board arrangements for testing/measuring vehicle wheel alignment (see also S02-J02A), vehicle rolling roads and engine dynamometers (see also S02-J01A). See X22-X06 codes for on-board vehicle measurement systems.	
Changed	X22-X20A	(2008- )	VEHICLE MANUFACTURE/ASSEMBLY/DISMANTLING	Vehicle manufacture/assembly/dismantling		Includes manufacture and assembly of motor vehicles and their components. See X25-X14 for manufacturing/assembly plants per se. Also includes systems for dismantling vehicles e.g. to enable recycling of materials (see also X25-W04).	Spray painting
<b>X23</b>							
Retired	X23-A09A	(2002-2009)	OFF-BOARD RAILWAY SYSTEMS	Off-board railway systems		*This code is now discontinued and transferred to X23-S. It is still valid and searchable for records prior to 2010. From 2005 major electric track laying equipment is transferred to X23-X. For station based passenger information/communications systems see X23-C02.	
Retired	X23-A09A1	(2005-2009)	SECURITY SYSTEMS	Security systems		*This code is now retired and transferred to X23-S01. It remains searchable and valid for records prior to 2010.	
Retired	X23-A09A1A	(2005-2009)	FOR PERSONNEL	For personnel		*This code is now discontinued and transferred to X23-S01A. It is still valid and searchable for records prior to 2010. Includes detection of concealed weapons. Also includes all aspects of passenger tracking and monitoring, including authorisation/access control for passengers (see T05-D codes also).	

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Retired	X23-A09A1E	(2005-2009)	FOR BAGGAGE	For baggage		*This code is now discontinued and transferred to X23-S01E. It is still valid and searchable for records prior to 2010. Includes all aspects of baggage inspection, monitoring and tracking. Includes use of transponder tags (see also W02 codes) or bar-code reader (see also T04 codes). See S03-C03 and S03-E06B codes for inspection.	
Retired	X23-A09A3	(2005-2009)	STATION SAFETY SYSTEMS	Station safety systems		*This code is now discontinued and transferred to X23-S03. It is still valid and searchable for records prior to 2010. Includes fire-fighting arrangements and automatic platform-edge doors control. Prior to 2005, platform edge doors control was coded in X23-A09.	
Retired	X23-A09A9	(2005-2009)	OTHER STATION DETAILS	Other station details		*This code is now discontinued and transferred to X23-S99. It is still valid and searchable for records prior to 2010. Includes transportation of baggage and passengers, and railway station specific heating and air-conditioning.	
New	X23-S	(2010- )	STATION/OFF-BOARD RAILWAY SYSTEMS	Station/off-board railway systems	X23-A09A	Includes electrical aspects of all offboard/station/platform details. From 2005 major electric track laying equipment is transferred to X23-X. For station based passenger information/communications systems see X23-C02 instead. See Q21-A codes for mechanical details of offboard railway stations and tracks. For offboard power supply systems see X23-A03A instead.	
New	X23-S01	(2010- )	SECURITY SYSTEMS	Security systems	X23-A09A1	Includes off-board systems for protecting railway passengers and cargo.	
New	X23-S01A	(2010- )	FOR PERSONNEL	For personnel	X23-A09A1A	Includes detection of concealed weapons. Also includes all aspects of passenger tracking and monitoring, including authorisation/access control for passengers (see T05-D codes also).	
New	X23-S01E	(2010- )	FOR BAGGAGE	For baggage	X23-A09A1E	Includes all aspects of baggage inspection, monitoring and tracking. Includes use of transponder tags (see also T04-K03B, W06-A04B and W02-G05 codes) or bar-code reader (see also T04-A03B1). See S03-C03 and S03-E06B codes for inspection.	
New	X23-S03	(2010- )	STATION SAFETY SYSTEMS	Station safety systems	X23-A09A3	Includes fire-fighting arrangements (see also X25-X05) and automatic platform-edge doors control (see also X25-U01). Prior to 2005, platform edge doors control was coded in X23-A09.	
New	X23-S05	(2010- )	TUNNELS	Tunnels	X23-A09A	Includes electrical details of tunnel construction and maintenance, as well as tunnel lighting arrangements (see also X26 codes). See Q21-A codes for mechanical details of railway or subway tunnels.	
New	X23-S99	(2010- )	OTHER OFFBOARD/STATION DETAILS	Other offboard/station details	X23-A09A9	Includes transportation of baggage and passengers (see also X25-F codes), and railway station specific heating and air-conditioning (see also X27-E codes).	
<b>X24</b>							
Changed	X24-D04		WELDING OF PLASTICS MATERIALS	Welding of plastics materials		See also X25-A06 and maybe T06-D13 for plastics working. Includes dielectric welding, RF welding and high frequency welding to fuse plastics together, and laser beam welding or cutting. Can be used in conjunction with other X24-D codes as appropriate	Electric resistance heaters
<b>X25</b>							
Changed	X25-R07	(1983- )	ELECTROPHORETIC COATING	Electrophoretic coating		Includes anodic and cathodic coating of electrode with non-conductive organic coating, where colloidal particles suspended in a liquid medium migrate under the influence of an electric field and are deposited onto the electrode.	Electropainting, E-coating, electrocoating, EP
<b>X26</b>							
Changed	X26		LIGHTING	Lighting		(1) Also includes illumination obtained by unconventional sources like LED, EL devices. However, such devices used for displays and signalling are not included. (2) Vehicle lamp circuitry / control and mounting arrangements onto vehicle body are coded in X22 only. X26 codes are applied to highlight the type of lamp (e.g. LED, incandescent, etc), or novel details of fixtures (e.g. lenses, refractors, etc).	
Changed	X26-A01A		MULTI-DISCHARGE PATH, ARC, ELECTRON-STREAM AND EXTERNAL ELECTRODE LAMPS	Multi-discharge path, arc, electron-stream and external electrode lamps			Xenon lamp

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Changed	X26-A01B	(1987- )	ELECTRODE-LESS, MICROWAVE LAMPS	Electrode-less, microwave lamps	X26-A01X		Waveguides, antennae, EM coils, field generation, inductive coupling, travelling wave discharge, microwave discharge, capacitive discharge, Sulphur lamp
Changed	X26-B01A	(2005- )	HALOGEN LAMPS	Halogen lamps			Tungsten lamp
Changed	X26-C		LAMP OPERATION AND CONTROL	Lamp operation and control		Vehicle lamp circuitry and control are coded in X22-B01F only.	
Changed	X26-C03		LAMPS (GENERAL)	Lamps (general)			Transformers
Changed	X26-D	(1983- )	FIXTURES	Fixtures		Arrangement details for supporting, suspending or attaching the light/lamp to e.g. a wall, ceiling, floor, etc, not involving details of light distribution are coded by X26-R. For vehicle lighting, see also X22-B codes.	
Changed	X26-H		LIGHT EMITTING DIODES (LEDS)	Light emitting diodes (LEDs)			
Changed	X26-H01	(2008- )	LEDS	LEDs		Includes semiconductor P-N junction type LEDs, per se, when used for illumination. See also U12-A01 codes for more details of the diodes. OLEDs or organic LED-based lighting is covered by X26-J.	
Changed	X26-J	(1992- )	ELECTROLUMINESCENT DEVICES (EL)	Electroluminescent devices (EL)	X26-X	Includes electroluminescent devices - such as OLEDs - and their circuits, when used for illumination. Does not include EL/OLED (organic LED) displays. See also U14-J codes for all electroluminescent light sources and displays. Manufacture of electroluminescent light sources are not covered by X26 codes, but by U14-J codes only. LED-based lighting is covered by X26-H only.	
New	X26-R	(2010- )	SUPPORTING/SUSPENDING ARRANGEMENTS FOR LIGHT FITTING	Supporting/suspending arrangements for light fitting	X26-X	Includes arrangement details for supporting, suspending or attaching the light/lamp to e.g. a wall, ceiling, floor, etc. Includes wall, ceiling or floor attachments, lamp posts, clips, clamps, suction or magnetic attachments, details of pendants, hand grips, etc. Details of light distribution, e.g. reflectors, refractors, filters, polarisers, etc, are covered by X26-D codes.	
Changed	X26-U03	(2005- )	HEATING/CURING, DISINFECTION/STERILISATION	Heating/curing, disinfection/sterilisation		Includes e.g. IR heat lamps or UV lamps used for curing adhesives or inks. Not used when X26-B01B/C02B are applied. See also X25-B01H for infrared heating lamps.	
Changed	X26-U99	(2006- )	OTHER LIGHTING APPLICATIONS	Other lighting applications		Includes light arrangement in reptile houses, aquaria, vivaria, umbrellas, vases, sewing machines, screwdrivers, keys, handbags, clothes, rugsacks, walking stick lights, etc. Cosmetic items, e.g. toothbrushes, are coded under X26-U01 only. See also X27 codes for domestic/personal items.	
Changed	X26-X		OTHER LIGHT SOURCES AND DETAILS	Other light sources and details		Covers lighting details not involving light emission (X26-A, etc) or light distribution (X26-D). Includes lamp posts, general lighting installations, pendant light rod, light strings/garland (Christmas lights or other decorative or novelty lights are in X26-M), etc.	
<b>X27</b>							
Changed	X27-A01	(1983- )	GARDEN EQUIPMENT	Garden equipment		Includes electrical aspects only e.g. power distribution, motor, switch, lighting, etc. Includes potted plants and domestic greenhouses.	
Changed	X27-A02D		SPECTACLES, GOGGLES	Spectacles, goggles		Includes electrical aspects only, e.g. liquid crystal light valve for welding goggles, see X24 also. For the manufacture of glasses see also X25-A03C2 and X25-A05 for glass lenses or X25-A06 for soft, plastic lenses. Includes software/computer systems to design specific spectacles for a wearer (see also T01). Spectacle based displays for video information are covered by W03-A08E7.	
New	X27-E01C	(2010- )	CLIMATE CONTROL	Climate control		Includes systems that automatically maintain room temperature by e.g. automatic window opening (see X25-M01 for novel electric windows per se), usage of waste heat etc.	