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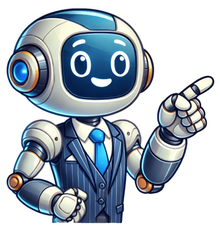

As an avid WWE gamer, few things are more frustrating than wrestling with installation issues impeding your access to all the shiny new features. Why slog through the limited teaser of demo mode when the full freedom of the complete experience awaits? The core culprit trapping players in the WWE 2K22 demo is interruptions corrupting game file installations, leaving remnants of the demo version scattered across your system. By carefully troubleshooting and safely installing the latest patch, you can overwrite these obsolete demo fragments and unlock the real meat and potatoes. Join me below for an in-depth exploration of how to break free from the demo mode bug once and for all! Lingering Demo Files Block the Full Experience Upon initially firing up WWE 2K22 during those excited first hours after purchase, many players encounter an unpleasant surprise – despite owning the full game, they remain banished to the limited demo mode! This occurs because essential game data is still trickling into your console or PC in the background post-purchase as massive updates continue installing. When you boot up WWE 2K22 mid-install, the existing demo files populate first while full game resources lag behind still downloading. Until installations fully complete, the demo version lingers, blocking access to amazing creation suites and online multiplayer that rightfully belong to you! Why Patches Cause Conflicts While the Windows and PlayStation editions launch rather smoothly, Xbox owners suffer the most demo mode woes during that intense initial post-purchase update storm required to unlock the complete experience. Comparing stability across platforms: Platform Risk of Demo Lock PlayStation 5 Low Windows PC (Steam) Low Xbox Series X Moderate Xbox One Very High Demo mode risk reflects forum complaints and observed patch stability The beefier storage and processing muscle driving next-gen consoles like PS5 and Xbox Series X safely endure WWE 2K22's endlessly expanding enhancements and new DLC additions through mostly seamless installs. But aging last-gen machines still in widespread use struggle with reliably overwriting demo data quick enough, especially the crawl of Xbox One downloads. Streaming installation files arrive too slow compared to trigger-happy gamers, eager to dive in before 100% completed. How to Blast Past Demo Mode for Good Now equipped with knowledge of what causes this pesky WWE 2K22 demo mode issue, let's explore proven solutions to bid farewell to limitations and tear down the barricade separating you from unlimited wrestling dominance! 1. Slam that Quit Button Before Updates Install When those glossy "NEW DLC AVAILABLE!" graphics flash across your screen, it's easy to rush towards the irresistible siren song of new features. But danger lurks! Ambushing updates mid-match risks sprinkling corrupted junk data across your WWE 2K22 files. Instead, quit completely to your console's main menu when patch announcements appear. This safely closes file access before installations modify anything, minimizing conflicts. Wait until downloads fully complete, resisting urge to sneak a quick exhibition bout. Believe me, I've learned the hard way after suffering shattered custom wrestler dreams! 2. Reinstall with Care After Patching If demo mode still persists after following best practices, the nuclear option exists – fully uninstalling WWE 2K22 then carefully redownloading the latest version. This brute forces a fresh overwrite of all files, demolishing bothersome demo remnants clinging to your system and starting you afresh. Average Install Size by Version Version Install Size Base Game 51 GB Version 1.6 62 GB Version 1.8 71 GB WWE 2K22 install footprint grows with continual DLC additions Yes, this solution means weathering long downloads again. But restoring clean file integrity is worth the way lighter demo-less experience…and access to shiny new roster additions! On the bright side, 2K has engineered a much more polished and optimized build compared to the bloated, creaking foundation plaguing past franchise entries. Relatively smooth installs and responsiveness suggest Walter White levels of carefully cooked purity under WWE 2K22's newly refined hood! Preparing Your System for Flawless Patch Installation Now armed with demolition instructions to obliterate demonic demo mode for good, what other general maintenance helps fortify your system against potential WWE 2K22 woes? Clear the Cache As patches pile up with glorious new wrestlers and arena parts, clearing console caches provides a refreshing spring cleaning sweeping away stubborn lingering update scraps. Both PlayStation and Xbox builds contain convenient cache clearing options within settings to empty things out. Defrag That Storage WWE 2K22's ever-expanding universe endlessly rewrites data across your precious SSD real estate. Regular defragmentation helps neatly order this string of patch chaos to minimize corruptions during installs. Wired > Wi-Fi When downloading massive content updates, Ethernet cables provide the fastest and most reliable throughput compared to temperamental Wi-Fi. Stable connections prevent derpy interruptions mid-install which might scramble demo Cowboys into the full version frontier when you next launch. This should arm you with plenty tools to prevent WWE 2K22's pesky demo restrictions from harshing your wrestling buzz! Never hesitate to ask for further tips in the comments below, or share your own hard-earned patch wisdom after braving the stormy update seas. Now let's get back to enjoying the real star – sweet grappling action! If you're a tech enthusiast - or just an average person who's taken an interest in electronics - then you've no doubt heard of emp jammers. But what are they, exactly, and how do they work? An emp jammer is an electronic device that emits powerful electromagnetic pulses (emp) that can disable or disrupt any type of electronic component. The emp pulse essentially overloads the electrical circuits of the device, causing it to shut down. The device works by creating a pulse of high-intensity magnetic energy that overwhelms the magnetic field of the device, completely severing its connection with the power source and rendering it useless.Although EMP jammers are relatively simple devices, they require a precise setup and proper understanding of electricity and magnetism in order to be effective. This is why many people are turning to emp jammer schematics to get a better understanding of how the devices work. An emp jammer schematic is a technical diagram that outlines the entire design and construction of an emp jammer, showing each component, its function, and its exact placement. For starters, if you're new to electronic schematics, you should begin with a simple design. Most emp jammer schematics involve components that you can pick up at your local electronics store, like switches, capacitors, transistors, and resistors. Once you've identified all the necessary parts and materials, you can start to construct the device.It's important to note that emp jammers pose a serious threat to our modern technological infrastructure. Therefore, it's crucial that you use these devices responsibly and only for legitimate purposes, such as security testing. It's also important to pay attention to the specific laws regarding emp jammers in your area, as they differ widely from state to state.Whether you're a tech hobbyist, security professional, or just curious about the capabilities of emp jammers, these schematics can give you a better understanding of this fascinating device. With the help of a good emp jammer schematic, you'll be able to construct and test your own device - and unlock the true potential of this cutting-edge technology. EMP jammers, or electromagnetic pulse jammers, are devices that emit high-intensity electromagnetic pulses that can disrupt, damage, or destroy electronic devices. While EMP jammers have legitimate uses in fields such as engineering and research, they can also be used for illegal purposes, such as cheating in casino slot machines. Before we can discuss how an EMP jammer works in slot machines, we must first understand the technology behind slot machines. Modern slot machines use microprocessors and software to generate random numbers that determine the outcome of each spin. These random numbers are then used to determine the symbols that appear on the reels. The random number generator (RNG) in a slot machine is designed to produce truly random results. However, some players may try to cheat the system by using various methods to manipulate the RNG and increase their chances of winning. EMP jammers work by emitting a high-intensity electromagnetic pulse that can disrupt or damage electronic devices. When an EMP jammer is activated near a slot machine, the electromagnetic pulse can affect the microprocessor and other electronic components of the machine. The result of an EMP attack on a slot machine can vary depending on the strength of the pulse and the proximity of the device to the machine. In some cases, the machine may simply malfunction or stop working. In more severe cases, the machine's software or hardware may be permanently damaged, making it impossible to repair. It is important to note that EMP jammers are illegal and can lead to serious consequences, including fines and imprisonment. The use of such devices to cheat in casino slot machines is a violation of state and federal laws and can result in criminal charges. Electromagnetic pulses (EMPs) are bursts of energy that can cause interference or damage to electronic devices. In the gaming industry, EMP jammers and generators have garnered a negative reputation due to their use for cheating in slot machines. However, EMPs can also be utilized for testing purposes by slot machine manufacturers. Testing slot machines for electromagnetic interference is crucial in ensuring that the machines are durable and resilient against such interference. EMP generators can be used by manufacturers to subject their machines to controlled electromagnetic pulses and assess the potential impact of such interference on the machines. Manufacturers can identify any vulnerabilities or weaknesses in their designs and take appropriate measures to address them. It is important to note that the use of EMP generators for testing purposes is vastly different from their illegal use for cheating in slot machines. Manufacturers who use an EMP generator for testing typically do so under strict laboratory conditions and in accordance with industry standards and regulations. The use of EMP generators for cheating is illegal and can result in severe legal consequences. Casinos employ various security measures to detect and prevent cheating, including surveillance technology, trained security personnel, and anti-tampering features on their machines. In conclusion, EMP generators and jammers can be useful tools for testing the resilience and durability of slot machines against electromagnetic interference. However, their use for cheating in slot machines is illegal and unethical. When shopping for EMP jammers online, it is important to do your research and ensure that you are purchasing from a reputable seller. Look for reviews and ratings from other customers, and make sure that the seller has a good track record of providing quality products and reliable customer service. Burst of electromagnetic energy This article is about the phenomenon in general. For nuclear EMP weapons, see Nuclear electromagnetic pulse. For Earth magnetosphere pulsations, see Magnetic pulsations. This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources: "Electromagnetic pulse" – news · newspapers · books · scholar · JSTOR (July 2023) (Learn how and when to remove this message) An electromagnetic pulse (EMP), also referred to as a transient electromagnetic disturbance (TED), is a brief burst of electromagnetic energy. The origin of an EMP can be natural or artificial, and can occur as an electromagnetic field, as an electric field, as a magnetic field, or as a conducted electric current. The electromagnetic interference caused by an EMP can disrupt communications and damage electronic equipment.[1] An EMP such as a lightning strike can physically damage objects such as buildings and aircraft. The management of EMP effects is a branch of electromagnetic compatibility (EMC) engineering. The first recorded damage from an electromagnetic pulse came with the solar storm of August 1859, or the Carrington Event.[2] In modern warfare, weapons delivering a high energy EMP are designed to disrupt[3] communications equipment, computers needed to operate modern warplanes, or even put the entire electrical network of a target country out of commission.[4] An electromagnetic pulse is a short surge of electromagnetic energy. Its short duration means that it will be spread over a range of frequencies. Pulses are typically characterized by: The mode of energy transfer (radiated, electric, magnetic or conducted). The range or spectrum of frequencies present. Pulse waveform: shape, duration and amplitude. The frequency spectrum and the pulse waveform are interrelated via the Fourier transform which describes how component waveforms may sum to the observed frequency spectrum. Main article: Electromagnetism EMP energy may be transferred in any of four forms: Electric field Magnetic field Electromagnetic radiation Electrical conduction According to Maxwell's equations, a pulse of electric energy will always be accompanied by a pulse of magnetic energy. In a typical pulse, either the electric or the magnetic form will dominate. It can be shown that the non-linear Maxwell's equations can have time-dependent self-similar electromagnetic shock wave solutions where the electric and the magnetic field components have a discontinuity.[5] In general, only radiation acts over long distances, with the magnetic and electric fields acting over short distances. There are a few exceptions, such as a solar magnetic flare. A pulse of electromagnetic energy typically comprises many frequencies from very low to some upper limit depending on the source. The range defined as EMP, sometimes referred to as "DC [direct current] to daylight", excludes the highest frequencies comprising the optical (infrared, visible, ultraviolet) and ionizing (X and gamma rays) ranges. Some types of EMP events can leave an optical trail, such as lightning and sparks, but these are side effects of the current flow through the air and are not part of the EMP itself. The waveform of a pulse describes how its instantaneous amplitude (field strength or current) changes over time. Real pulses tend to be quite complicated, so simplified models are often used. Such a model is typically described either in a diagram or as a mathematical equation. Rectangular pulse Double exponential pulse Damped sinewave pulse Most electromagnetic pulses have a very sharp leading edge, building up quickly to their maximum level. The classic model is a double-exponential curve which climbs steeply, quickly reaches a peak and then decays more slowly. However, pulses from a controlled switching circuit often approximate the form of a rectangular or "square" pulse. EMP events usually induce a corresponding signal in the surrounding environment or material. Coupling usually occurs most strongly over a relatively narrow frequency band, leading to a characteristic damped sine wave. Visually it is shown as a high frequency sine wave growing and decaying within the longer-lived envelope of the double-exponential curve. A damped sinewave typically has much lower energy and a narrower frequency spread than the original pulse, due to the transfer characteristic of the coupling mode. In practice, EMP test equipment often injects these damped sinewaves directly rather than attempting to recreate the high-energy threat pulses. In a pulse train, such as from a digital clock circuit, the waveform is repeated at regular intervals. A single complete pulse cycle is sufficient to characterise such a regular, repetitive train. An EMP arises where the source emits a short-duration pulse of energy. The energy is usually broadband by nature, although it often excites a relatively narrow-band damped sine wave response in the surrounding environment. Some types are generated as repetitive and regular pulse trains. Different types of EMP arise from natural, man-made, and weapons effects. Types of natural EMP events include: Lightning electromagnetic pulse (LEMP). The discharge is typically an initial current flow of perhaps millions of amps, followed by a train of pulses of decreasing energy. Electrostatic discharge (ESD), as a result of two charged objects coming into proximity or even contact. Meteoric EMP. The discharge of electromagnetic energy resulting from either the impact of a meteoroid with a spacecraft or the explosive breakup of a meteoroid passing through the Earth's atmosphere.[6][7] Coronal mass ejection (CME), sometimes referred to as a solar EMP. A burst of plasma and accompanying magnetic field, ejected from the solar corona and released into the solar wind.[8] Types of (civil) man-made EMP events include: Switching action of electrical circuitry, whether isolated or repetitive (as a pulse train). Electric motors can create a train of pulses as the internal electrical contacts make and break connections as the armature rotates. Gasoline engine ignition systems can create a train of pulses as the spark plugs are energized or fired. Continual switching actions of digital electronic circuitry. Power line surges. These can be up to several kilovolts, enough to damage electronic equipment that is insufficiently protected. Types of military EMP include: Nuclear electromagnetic pulse (NEMP), as a result of a nuclear explosion. A variant of this is the high altitude nuclear EMP (HEMP), which produces a secondary pulse due to particle interactions with the Earth's atmosphere and magnetic field. Non-nuclear electromagnetic pulse (NNEMP) weapons. Main article: Lightning Lightning is unusual in that it typically has a preliminary "leader" discharge of low energy building up to the main pulse, which in turn may be followed at intervals by several smaller bursts.[9][10] Main article: Electrostatic discharge ESD events are characterized by high voltages of many kV, but small currents sometimes cause visible sparks. ESD is treated as a small, localized phenomenon, although technically a lightning flash is a very large ESD event. ESD can also be man-made, as in the shock received from a Van de Graaff generator. An ESD event can damage electronic circuitry by injecting a high-voltage pulse, besides giving people an unpleasant shock. Such an ESD event can also create sparks, which may in turn ignite fires or fuel-vapour explosions. For this reason, before refueling an aircraft or exposing any fuel vapor to the air, the fuel nozzle is first connected to the aircraft to safely discharge any static. The switching action of an electrical circuit creates a sharp change in the flow of electricity. This sharp change is a form of EMP. Simple electrical sources include inductive loads such as relays, solenoids, and brush contacts in electric motors. These typically send a pulse down any electrical connections present, as well as radiating a pulse of energy. The amplitude is usually small and the signal may be treated as "noise" or "interference". The switching off or "opening" of a circuit causes an abrupt change in the current flowing. This can in turn cause a large pulse in the electric field across the open contacts, causing arcing and damage. It is often necessary to incorporate design features to limit such effects. Electronic devices such as vacuum tubes or valves, transistors, and diodes can also switch on and off very quickly, causing similar issues. One-off pulses may be caused by solid-state switches and other devices used only occasionally. However, the many millions of transistors in a modern computer may switch repeatedly at frequencies above 1 GHz, causing interference that appears to be continuous. Main article: Nuclear electromagnetic pulse A nuclear electromagnetic pulse is the abrupt pulse of electromagnetic radiation resulting from a nuclear explosion. The resulting rapidly changing electric fields and magnetic fields may couple with electrical/electronic systems to produce damaging current and voltage surges.[11] The intense gamma radiation emitted can also ionize the surrounding air, creating a secondary EMP as the atoms of air first lose their electrons and then regain them. NEMP weapons are designed to maximize such EMP effects as the primary damage mechanism, and some are capable of destroying susceptible electronic equipment over a wide area. A high-altitude electromagnetic pulse (HEMP) weapon is a NEMP warhead designed to be detonated far above the Earth's surface. The explosion releases a blast of gamma rays into the mid-stratosphere, which ionizes as a secondary effect and the resultant energetic free electrons interact with the Earth's magnetic field to produce a much stronger EMP than is normally produced in the denser air at lower altitudes. Non-nuclear electromagnetic pulse (NNEMP) is a weapon-generated electromagnetic pulse without use of nuclear technology. Devices that can achieve this objective include a large low-inductance capacitor bank discharged into a single-loop antenna, a microwave generator, and an explosively pumped flux compression generator. To achieve the frequency characteristics of the pulse needed for optimal coupling into the target, wave-shaping circuits or microwave generators are added between the pulse source and the antenna. Vircators are vacuum tubes that are particularly suitable for microwave conversion of high-energy pulses.[12] NNEMP generators can be carried as a payload of bombs, cruise missiles (such as the CHAMP missile) and drones, with diminished mechanical, thermal and ionizing radiation effects, but without the consequences of deploying nuclear weapons. The range of NNEMP weapons is much less than nuclear EMP. Nearly all NNEMP devices used as weapons require chemical explosives as their initial energy source, producing only one millionth the energy of nuclear explosives of similar weight.[13] The electromagnetic pulse from NNEMP weapons must come from within the weapon, while nuclear weapons generate EMP as a secondary effect.[14] These facts limit the range of NNEMP weapons, but allow finer target discrimination. The effect of small e-bombs has proven to be sufficient for certain terrorist or military operations.[citation needed] Examples of such operations include the destruction of electronic control systems critical to the operation of many ground vehicles and aircraft.[15][additional citation(s) needed] The concept of the explosively pumped flux compression generator for generating a non-nuclear electromagnetic pulse was conceived as early as 1951 by Andrei Sakharov in the Soviet Union,[16] but nations kept work on non-nuclear EMP classified until similar ideas emerged in other nations. Minor EMP events, and especially pulse trains, cause low levels of electrical noise or interference which can affect the operation of susceptible devices. For example, a common problem in the mid-twentieth century was interference emitted by the ignition systems of gasoline engines,[17] which caused radio sets to crackle and TV sets to show stripes on the screen. CISPR 25 was established to set threshold standards that vehicles must meet for electromagnetic interference(EMI) emissions. A demonstration of how Electromagnetic Radiation powers (and destroys) circuits. At a high voltage level an EMP can induce a spark, for example from an electrostatic discharge when fuelling a gasoline-engined vehicle. Such sparks have been known to cause fuel-air explosions and precautions must be taken to prevent them.[18] A large and energetic EMP can induce high currents and voltages in the victim unit, temporarily disrupting its function or even permanently damaging it.[citation needed] A powerful EMP can also directly affect magnetic materials and corrupt the data stored on media such as magnetic tape and computer hard drives. Hard drives are usually shielded by heavy metal casings. Some IT asset disposal service providers and computer recyclers use a controlled EMP to wipe such magnetic media.[19] A very large EMP event, such as a lightning strike or an air bursted nuclear weapon, is also capable of damaging objects such as trees, buildings and aircraft directly, either through heating effects or the disruptive effects of the very large magnetic field generated by the current. An indirect effect can be electrical fires caused by heating. Most engineered structures and systems require some form of protection against lightning to be designed in. A good means of protection is a Faraday shield designed to protect certain items from being destroyed.[citation needed] Main article: Electromagnetic compatibility EMP simulator HAGII-C testing a Boeing E-4 aircraft. EMPRESS I (antennas along shoreline) with USS Estocin (FFG-15) moored in the foreground for testing. Like any electromagnetic interference, the threat from EMP is subject to control measures. This is true whether the threat is natural or man-made. Therefore, most control measures focus on the susceptibility of equipment to EMP effects, and hardening or protecting it from harm. Man-made sources, other than weapons, are also subject to control measures in order to limit the amount of pulse energy emitted. The discipline of ensuring correct equipment operation in the presence of EMP and other RF threats is known as electromagnetic compatibility (EMC). To test the effects of EMP on engineered systems and equipment, an EMP simulator may be used. Induced pulses are of much lower energy than threat pulses and so are more practicable to create, but they are less predictable. A common test technique is to use a current clamp in reverse, to inject a range of damped sine wave signals into a cable connected to the equipment under test. The damped sine wave generator is able to reproduce the range of induced signals likely to occur. Sometimes the threat pulse itself is simulated in a repeatable way. The pulse may be reproduced at low energy in order to characterise the subject's response prior to damped sinewave injection, or at high energy to recreate the actual threat conditions. A small-scale ESD simulator may be hand-held. Bench- or room-sized simulators come in a range of designs, depending on the type and level of threat to be generated. At the top end of the scale, large outdoor test facilities incorporating high-energy EMP simulators have been built by several countries.[20][21] The largest facilities are able to test whole vehicles including ships and aircraft for their susceptibility to EMP. Nearly all of these large EMP simulators used a specialized version of a Marx generator.[20][21] Examples include the huge wooden-structured ATLAS-I simulator (also known as TRESTLE) at Sandia National Labs, New Mexico, which was at one time the world's largest EMP simulator.[22] Papers on this and other large EMP simulators used by the United States during the latter part of the Cold War, along with more general information about electromagnetic pulses, are now in the care of the SUMMA Foundation, which is hosted at the University of New Mexico.[23][24] The US Navy also has a large facility called the Electro Magnetic Pulse Radiation Environmental Simulator for Ships I (EMPRESS I). High-level EMP signals can pose a threat to human safety. In such circumstances, direct contact with a live electrical conductor should be avoided. Where this occurs, such as when touching a Van de Graaff generator or other highly charged object, care must be taken to release the object and then discharge the body through a high resistance, in order to avoid the risk of a harmful shock pulse when stepping away.[citation needed] Very high electric field strengths can cause breakdown of the air and a potentially lethal arc current similar to lightning to flow, but electric field strengths of up to 200 kV/m are regarded as safe.[25] According to research from Edd Gent, a 2019 report by the Electric Power Research Institute, which is funded by utility companies, found that a large EMP attack would probably cause regional blackouts but not a nationwide grid failure and that recovery times would be similar to those of other large-scale outages.[26] It is not known how long these electrical blackouts would last, or what extent of damage would occur across the country.[citation needed] It is possible that neighboring countries of the U.S. could also be affected by such an attack, depending on the targeted area and people.[citation needed] According to an article from Naureen Malik, with North Korea's increasingly successful missile and warhead tests in mind, Congress moved to renew funding for the Commission to Assess the Threat to the U.S. from Electromagnetic Pulse Attack as part of the National Defense Authorization Act.[27] According to research from Yoshida Reiji, in a 2016 article for the Tokyo-based nonprofit organization Center for Information and Security Trade Control, Onizuka warned that a high-altitude EMP attack would damage or destroy Japan's power, communications and transport systems as well as disable banks, hospitals and nuclear power plants.[28] By 1981, a number of articles on electromagnetic pulse in the popular press spread knowledge of the EMP phenomenon into the popular culture.[29][30][31][32] EMP has been subsequently used in a wide variety of fiction and other aspects of popular culture. Popular media often depict EMP effects incorrectly, causing misunderstandings among the public and even professionals.[specify] Official efforts have been made in the U.S. to remedy these misconceptions.[33][34] The novel One Second After by William R. Forstchen and the following books One Year After, The Final Day and Five Years After portrait the story of a fictional character named John Matherson and his community in Black Mountain, North Carolina that after the US loses a war and an EMP attack "sends our nation [the US] back to the Dark Ages". Directed-energy weapon Electromagnetic compatibility Electromagnetic environment Electronic warfare Faraday's law of induction Geomagnetic storm MIL-STD-461, a United States Military Standard that describes how to test equipment for electromagnetic compatibility Pulsed power Transient (oscillation) Ultrashort pulse Vircator Explosively pumped flux compression generator ^ Royal Air Force Common Core and Deployment Skills Aide-Memoire AP 3242B VOL 5, ABBREVIATIONS ^ Gutteridge, Nick (30 July 2020). "Electromagnetic pulses in history". The Telegraph. Retrieved 12 February 2023. ^ "DHS Combats Potential Electromagnetic Pulse (EMP) Attack". Department of Homeland Security. 3 September 2020. Retrieved 3 May 2021. ^ Weiss, Matthew; Weiss, Martin (29 May 2019). "An Assessment of Threats to the American Power Grid". Energy, Sustainability and Society. 9 (1): 18. doi:10.1186/s13705-019-0199-y. ISSN 2192-0567. ^ Barna, I. F. (2014). "Self-similar shock wave solutions of the nonlinear Maxwell equations". Laser Physics. 24 (8): 086002. arXiv:1303.7084. Bibcode:2014LaPhy..24h6002B. doi:10.1088/1054-660X/24/8/086002. ^ Close, S.; Colestock, P.; Cox, L.; Kelley, M.; Lee, N. (2010). "Electromagnetic pulses generated by meteoroid impacts on spacecraft". Journal of Geophysical Research. 115 (A12): A12328. Bibcode:2010JGRA..11512328C. doi:10.1029/2010JA015921. ^ Chandler, Charles. "Meteoric Airbursts: General Principles". QDL blog. Retrieved 30 December 2014. ^ "EMPACT America, Inc. – Solar EMP". 26 July 2011. Archived from the original on 26 July 2011. Retrieved 23 November 2015. ^ Howard, J.; Uman, M. A.; Biagi, C.; Hill, D.; Rakov, V. A.; Jordan, D. M. (2011). "Measured close lightning leader step electric field derivative waveforms" (PDF). Journal of Geophysical Research. 116 (D8): D08201. Bibcode:2011JGRD..116.8201H. doi:10.1029/2010JD015249. ^ "A Basic Primer in Lightning Effects and Protection" (PDF). weighing-systems.com. Archived from the original (PDF) on 15 November 2015. Retrieved 8 September 2015. ^ "America's utilities prepare for a nuclear threat to the grid". The Economist. Retrieved 21 September 2017. ^ Kopp, Carlo (October 1996). "The Electromagnetic Bomb - A Weapon of Electrical Mass Destruction". USAF CADRE Air Chronicles. DTIC:ADA332511. Archived from the original on 5 October 2013. Retrieved 12 January 2012. ^ Glasstone & Dolan 1977, Chapter 1. ^ Glasstone & Dolan 1977, Chapter 11, section 11.73. ^ Marks, Paul (1 April 2009). "Aircraft could be brought down by DIY 'E-bombs'". New Scientist. pp. 16–17. ^ Younger, Stephen; et al. (1996). "Scientific Collaborations Between Los Alamos and Arzamas-16 Using Explosive-Driven Flux Compression Generators" (PDF). Los Alamos Science (24): 48–71. Retrieved 24 October 2009. ^ "What is EMI & RFI? And How Can You Stop Electric & Ignition Interference?". OnAllCylinders. 14 April 2022. Retrieved 9 August 2024. ^ "Fundamentals of Electrostatic Discharge", Compliance Magazine, 1 May 2015. Retrieved 25 June 2015. ^ "EMP Data Wipe". newtechrecycling.com. Newtech Recycling. Archived from the original on 12 June 2018. Retrieved 12 June 2018. ^ a b Baum, Carl E. (May 2007). "Reminiscences of High-Power Electromagnetics" (PDF). IEEE Trans. Electromagn. Compat. 49 (2): 211–8. doi:10.1109/temc.2007.897147. S2CID 22495327. ^ a b Baum, Carl E. (June 1992). "From the Electromagnetic Pulse to High-Power Electromagnetics" (PDF). Proceedings of the IEEE. 80 (6): 789–817. Bibcode:1992IEEEP..80..789B. doi:10.1109/5.149443. ^ Reuben, Charles. "The Atlas-I Trestle at Kirtland Air Force Base". The University of New Mexico. ^ "SUMMA Foundation – Carl Baum, Electrical and Computer Engineering Department, University of New Mexico". ece-research.unm.edu. ^ "SUMMA Foundation – Carl Baum, Electrical and Computer Engineering Department, University of New Mexico". Ece.unm.edu. 17 January 2013. Retrieved 18 June 2013. ^ "Protecting Personnel from Electromagnetic Fields", US Department of Defense Instruction No. 6055.11, 19 August 2009. ^ Edd Gent-Live Science Contributor 11 (March 2021). "US Air Force is guarding against electromagnetic pulse attacks. Should we worry?". livescience.com. Retrieved 2 May 2021. {{cite web}}: |author= has generic name (help)CS1 maint: numeric names: authors list (link) ^ "Can America's Power Grid Survive an Electromagnetic Attack?". BloombergQuint. 22 December 2017. Retrieved 3 May 2021. ^ Yoshida, Reiji (8 September 2017). "Threat of North Korean EMP attack leaves Japan vulnerable". The Japan Times. Retrieved 3 May 2021. ^ Raloff, Janet. 9 May 1981. "EMP: A Sleeping Electronic Dragon." Science News. Vol. 119, p. 300. ^ Raloff, Janet. 16 May 1981. "EMP: Defensive Strategies." Science News. Vol. 119, p. 314. ^ Broad, William J. 1983 January/February. "The Chaos Factor" Science 83, pp. 41–49. ^ Burnham, David. 28 June 1983. "U.S. Fears One Bomb Could Cripple the Nation." New York Times, p. C1. [1] ^ Report Meta-R-320: "The Early-Time (E1) High-Altitude Electromagnetic Pulse (HEMP) and Its Impact on the U.S. Power Grid", January 2010. Written by Metatech Corporation for Oak Ridge National Laboratory. Appendix: E1 HEMP Myths. ^ Air Force Space Command, Hollywood vs. EMP, Manitou Motion Picture Company, 2009 (not available to the general public). Katayev, I.G. (1966). Electromagnetic Shock Waves Iliffe Books Ltd. Dorset House, Stanford Street, London, England Glasstone, Samuel; Dolan, Philip J. (1977). The Effects of Nuclear Weapons. United States Department of Defense and the Energy Research and Development Administration. Gurevich, Vladimir (2019). Protecting Electrical Equipment: Good Practices for Preventing High Altitude Electromagnetic Pulse Impacts. Berlin: De Gruyter. Wikimedia Commons has media related to Electromagnetic pulse. TRESTLE: Landmark of the Cold War, a short documentary film on the SUMMA Foundation website Retrieved from " With rogue drone incidents increasing by 240% since 2020, enterprises require targeted solutions to protect critical infrastructure. Drone jammer guns vary significantly in capability—this guide breaks down 4 key types, their operational differences, and how to choose the right system for your security needs. As drone threats evolve, so do counter-drone technologies. This guide introduces 4 critical drone jammer types—RF jammer guns, tactical guns, EMP drone guns, and Smart jammer guns—with technical specifications, use cases, and compliance insights to help enterprises make informed decisions. Guns Technical Comparison: Product Application Shielding Distance Legality RF Drone Jammer Gun Used to disrupt RF signals of drones in urban environments, airports, and secure facilities to prevent unauthorized drone flights 300-2000M Civilian-legal Tactical Drone Gun Designed for military and law enforcement use to disable drones in combat or tactical situations, such as counter-terrorism operations or border patrols 1km–3km Export-restricted EMP Drone Gun Employs an electromagnetic pulse (EMP) to disable electronic systems of drones, useful in high-risk scenarios requiring immediate drone neutralization