SHORT SUMMARY OF DEVICES

KUSTOM SIGNALS, INC.

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Home> Video: Digital Eyewitness Family | Digital Eyewitness® G3 Vision | Digital Eyewitness® G3 | Digital Eyewitness® ION Eclipse | KustomNet™ | Digital Eyewitness Media Manager | Controller and Monitor | ClearComm DSS 900 MHz Transmitter

Digital Eyewitness Family

The NEW Digital Eyewitness G3 Vision allows simultaneous recording from up to four cameras. Cameras may be positioned to simultaneously record activity both outside (front, back and side) and inside the patrol vehicle. The G3 Vision achieves maximum video documentation during traffic stops.

Digital Eyewitness G3 in-car video system supports all the features you want, yet takes up very little space inside your patrol car – leaving you more room to work. It's also economically priced, leaving more room in your budget.

Digital Eyewitness ION Eclipse — The ION Eclipse is the next generation of digital in-car video that feature open architecture to allow you to configure the system to meet your needs today, as well as offering the flexibility to support your needs for many years to come.

Our in-car camera systems come with many optional devices, such as GPS, Automatic crash record detection activation for police units, and saving on different types of video formats!

Digital Eyewitness — The original, and still the only system on the market for police and surveillance officers that includes a maximum-security vault. The vault mounts in the truck, and protects your

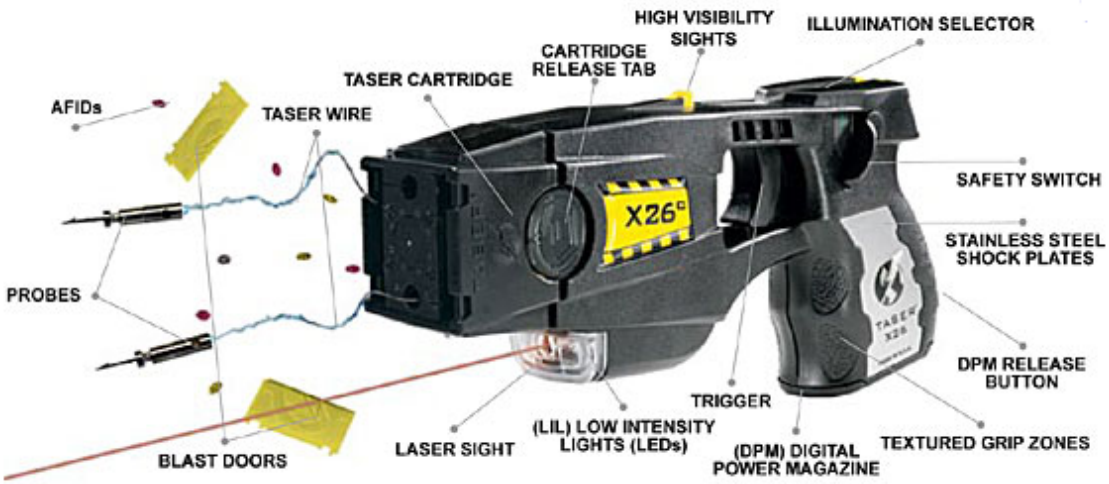
DIGITAL EYEWITNESS G3

G3 is a full-featured system that offers economy of both size and price. User interface options include a dedicated controller and mirror monitor, or your mobile computer. Supports manual, wired and wireless file transfer.

DIGITAL EYEWITNESS ROAD BOSS

Road Boss is our most compact in-car system. It is a great choice for agencies that want a basic, easy to use system. Supports manual and wired file transfer.


X26
TASER
TASER
X26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ILLUMINATION SELECTOR
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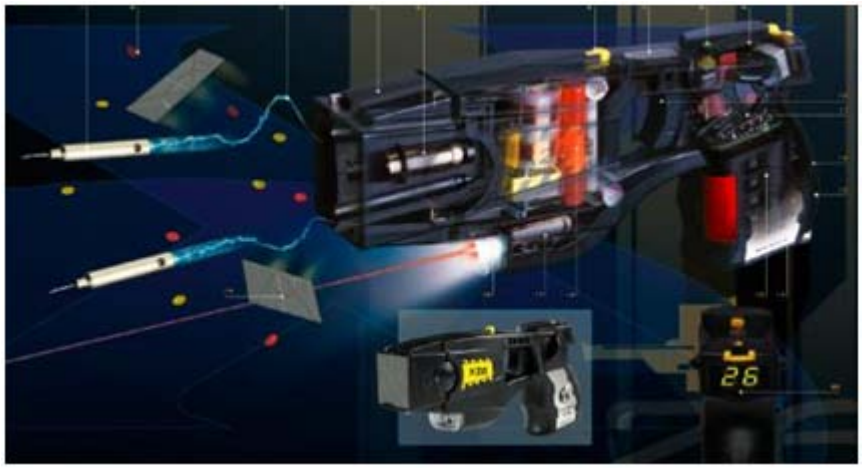
TASER CARTRIDGE
AFIDs
TASER WIRE
SAFETY SWITCH
X26
STAINLESS STEEL SHOCK PLATES
PROBES
DPM RELEASE BUTTON
TRIGGER
(LIL) LOW INTENSITY LIGHTS (LEDs)
LASER SIGHT
(DPM) DIGITAL POWER MAGAZINE
TEXTURED GRIP ZONES
BLAST DOORS


26

RECOMMENDED DRIVE-STUN AREAS FOR MAXIMUM EFFECT

When officer safety is at risk, drive the X26 into the following areas for maximum effectiveness.

- Carotid (sides of neck) (see warning below).
- Brachial plexus tie-in (upper chest).
- Radial (forearm).
- Pelvic triangle (see warning below).
- Common peronial (Outside of thigh).
- Tibial (calf muscle).

WARNING: Use care when applying a drive-stun to the neck or groin. These areas are sensitive to mechanical injury (such as crushing to the trachea or testicles if applied forcefully). However, these areas have proven highly effective targets. These areas should only be targeted when officers are defending themselves from violent attacks. Refer to your department's policy regarding drive-stuns in these and other sensitive areas.

DOWNLOADING DATA FROM THE X26 DEVICE

General operating notes:

- The time recorded in the download data log represents the end of the firing cycle, not when the trigger switch is initially pulled.
- The X26 device only records the total duration of each firing, not each trigger pull. If the trigger is pulled multiple times in one 5-second cycle (e.g., double tapping), this

will not be indicated in the download data.

- Downloading or saving data from the X26 device does not erase the data from the X26 device's memory. There are no options for users to erase data from the X26 device's memory.


TASER


X26
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http://www.cdc.gov/niosh/docs/2002-123/2002-123b.html

art of electricty

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Electrical Safety Safety and Health for Electrical Trades Student Manual

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Section 1
Electricity Is Dangerous

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Power drills use 30 times as much current as what will kill.

A severe shock can cause much more damage to the body than is visible. A person may suffer internal bleeding and destruction of tissues, nerves, and muscles. Sometimes the hidden injuries caused by electrical shock result in a delayed death. Shock is often only the beginning of a chain of events. Even if the electrical current is too small to cause injury, your reaction to the shock may cause you to fall, resulting in bruises, broken bones, or even death.

The length of time of the shock greatly affects the amount of injury. If the shock is short in duration, it may only be painful. A longer shock (lasting a few seconds) could be fatal if the level of current is high enough to cause the heart to go into ventricular fibrillation. This is not much current when you realize that a small power drill uses 30 times as much current as what will kill. At relatively high currents, death is certain if the shock is long enough. However, if the shock is short and the heart has not been damaged, a normal heartbeat may resume if contact with the electrical current is eliminated. (This type of recovery is rare.)

- The greater the current, the greater the shock!

- Severity of shock depends on voltage, amperage, and resistance.

resistance-a material's ability to decrease or stop electrical current

ohm-unit of measurement for electrical resistance

- Lower resistance causes greater currents.

- Currents across the chest are very dangerous.

The amount of current passing through the body also affects the severity of an electrical shock. Greater voltages produce greater currents. So, there is greater danger from higher voltages. Resistance hinders current. The lower the resistance (or impedance in AC circuits), the greater the current will be. Dry skin may have a resistance of 100,000 ohms or more. Wet skin may have a resistance of only 1,000 ohms. Wet working conditions or broken skin will drastically reduce resistance. The low resistance of wet skin allows current to pass into the body more easily and give a greater shock. When more force is applied to the contact point or when the contact area is larger, the resistance is lower, causing stronger shocks.

The path of the electrical current through the body affects the severity of the shock. Currents through the heart or nervous system are most dangerous. If you contact a live wire with your head, your nervous system will be damaged. Contacting a live electrical part with one hand-while you are grounded at the other side of your body-will cause electrical current to pass across your chest, possibly injuring your heart and lungs.

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Effects of Electrical Current* on the Body [3]

Current	Reaction
1 milliamp	Just a faint tingle.
5 milliamps	Slight shock felt. Disturbing, but not painful. Most people can "let go." However, strong involuntary movements can cause injuries.
6-25 milliamps (women)† 9-30 milliamps (men)	Painful shock. Muscular control is lost. This is the range where "freezing currents" start. It may not be possible to "let go."
50-150 milliamps	Extremely painful shock, respiratory arrest (breathing stops), severe muscle contractions. Flexor muscles may cause holding on; extensor muscles may cause intense pushing away. Death is possible.
1,000-4,300 milliamps (1-4.3 amps)	Ventricular fibrillation (heart pumping action not rhythmic) occurs. Muscles contract; nerve damage occurs. Death is likely.
10,000 milliamps (10 amps)	Cardiac arrest and severe burns occur. Death is probable.
15,000 milliamps (15 amps)	Lowest overcurrent at which a typical fuse or circuit breaker opens a circuit!

*Effects are for voltages less than about 600 volts. Higher voltages also cause severe burns.
†Differences in muscle and fat content affect the severity of shock.

Ohm's Law (again!)

A common phrase heard in reference to electrical safety goes something like this: "*It's not voltage that kills, its current!*" While there is an element of truth to this, there's more to understand about shock hazard than this simple adage. If voltage presented no danger, no one would ever print and display signs saying: **DANGER -- HIGH VOLTAGE!**

The principle that "current kills" is essentially correct. It is electric current that burns tissue, freezes muscles, and fibrillates hearts. However, electric current doesn't just occur on its own: there must be voltage available to motivate electrons to flow through a victim. A person's body also presents resistance to current, which must be taken into account.

Taking Ohm's Law for voltage, current, and resistance, and expressing it in terms of current for a given voltage and resistance, we have this equation:

The path current takes through the human body makes a difference as to how harmful it is. Current will affect whatever muscles are in its path, and since the heart and lung (diaphragm) muscles are probably the most critical to one's survival, shock paths traversing the chest are the most dangerous. This makes the hand-to-hand shock current path a very likely mode of injury and fatality.

Ohm's Law (again!) : ELECTRICAL SAFETY - Windows Internet Explorer

http://www.allaboutcircuits.com/vol_1/chpt_3/4.html

Notice that in this condition, 20 volts is enough to produce a current of 20 milliamps through a person: enough to induce tetanus. Remember, it has been suggested a current of only 17 milliamps may induce ventricular (heart) fibrillation. With a hand-to-hand resistance of 1000 Ω, it would only take 17 volts to create this dangerous condition:

Ohm's Law (again!) : ELECTRICAL SAFETY - Windows Internet Explorer

http://www.allaboutcircuits.com/vol_1/chpt_3/4.html

The conditions necessary to produce 1,000 Ω of body resistance don't have to be as extreme as what was presented, either (sweaty skin with contact made on a gold ring). Body resistance may decrease with the application of voltage (especially if tetanus causes the victim to maintain a tighter grip on a conductor) so that with constant voltage a shock may increase in severity after initial contact. What begins as a mild shock -- just enough to "freeze" a victim so they can't let go -- may escalate into something severe enough to kill them as their body resistance decreases and current correspondingly increases.

Research has provided an approximate set of figures for electrical resistance of human contact points under different conditions (see end of chapter for information on the source of this data):

- Wire touched by finger: 40,000 Ω to 1,000,000 Ω dry, 4,000 Ω to 15,000 Ω wet.
- Wire held by hand: 15,000 Ω to 50,000 Ω dry, 3,000 Ω to 5,000 Ω wet.
- Metal pliers held by hand: 5,000 Ω to 10,000 Ω dry, 1,000 Ω to 3,000 Ω wet.
- Contact with palm of hand: 3,000 Ω to 8,000 Ω dry, 1,000 Ω to 2,000 Ω wet.
- 1.5 inch metal pipe grasped by one hand: 1,000 Ω to 3,000 Ω dry, 500 Ω to 1,500 Ω wet.
- 1.5 inch metal pipe grasped by two hands: 500 Ω to 1,500 kΩ dry, 250 Ω to 750 Ω wet.
- Hand immersed in conductive liquid: 200 Ω to 500 Ω.
- Foot immersed in conductive liquid: 100 Ω to 300 Ω.

safety standards which used RMS currents.

TASER ECDs Basic Electrical Characteristics

Electrical Output Characteristic	TASER® X26	ADVANCED TASER® M26
Waveform	Complex (a single cycle 100 kHz (kilohertz) arcing phase followed by monophasic 100 µs (microsecond) stimulation phase. 48 µs decay time constant	50 kHz damped sine wave with a 17 µs decay time constant
Pulse Plots		
Waveform and stimulation capability with typical 400 Ω (ohm) load	1 A (ampere) average current during the 100 µs pulse	8.5 A during 10 µs main phase 0.8 A during full 40 µs pulse
Pulse Rate	19 PPS (Pulses Per Second) crystal controlled	20 ± 25% PPS with NiMH rechargeable cells 15 ± 25% PPS with Alkaline cells
Pulse Duration	100 µs	40 µs full waveform 10 µs main phase
Total per second discharge time ("on" time)	0.0019 seconds	0.0008 seconds (at 20 PPS)
Voltage (peak open circuit arcing)	50,000 V (volt)	50,000 V
Voltage (peak loaded)	1,200 V	5,000 V
Avg. voltage over duration of main phase Avg. voltage over duration of full pulse	400 V 350 V	3400 V 320 V

Electrical Output Characteristic	TASER® X26	ADVANCED TASER® M26
Voltage – average (one second baseline)	0.76 V	1.3 V
Current – average (one second baseline) – milliamperes (mA) [0.001 A]	2.1 mA or 0.0021 A (average rectified current) 1.9 mA current from main phase which is a better estimate of stimulation capacity	3.6 mA or 0.0036 A (average rectified current) 1.7 mA current from main phase which is a better estimate of stimulation capacity
Energy per pulse – at main capacitor	0.36 J (joules)	1.76 J
Energy per pulse – delivered into load	0.07 J	0.50 J
Delivered charge – main phase	100 µC (microcoulombs), 88 µC net	85 µC, 32 µC net
Power delivered to main capacitor	7 W (watts) nominal	26 W nominal
Power output – delivered into load	1.3 W	7.39 W at 15 PPS
Power source	Digital Power Magazine – two 3 V photo cells [Duracell® Ultra, CR123A]	8 – AA NiMH cells (1.2 V per cell) or 8 – AA Alkaline cells (1.5 V per cell)
Expected number of TASER device discharges from fresh battery of cells	Approximately 195 five-second discharges, depending on temperature, battery charge, and load characteristics.	200–300 typical
Expected number of TASER pulses per battery of cells	20,000 pulses [19 pps x 5 s = 95 pp/5s; 95 pp/5s x 195 discharges = 18,525 pulses per battery of cells [this can conservatively be rounded off to 20,000 pulses]	6,000 pulses [M26 with battery of eight NiMH AA [1700 mA H (milliampere hour)] penlight cells have been tested to continuously discharge for up to 6.5 minutes – which conservatively calculates to approximately 6,000 pulses per fresh battery of cells]

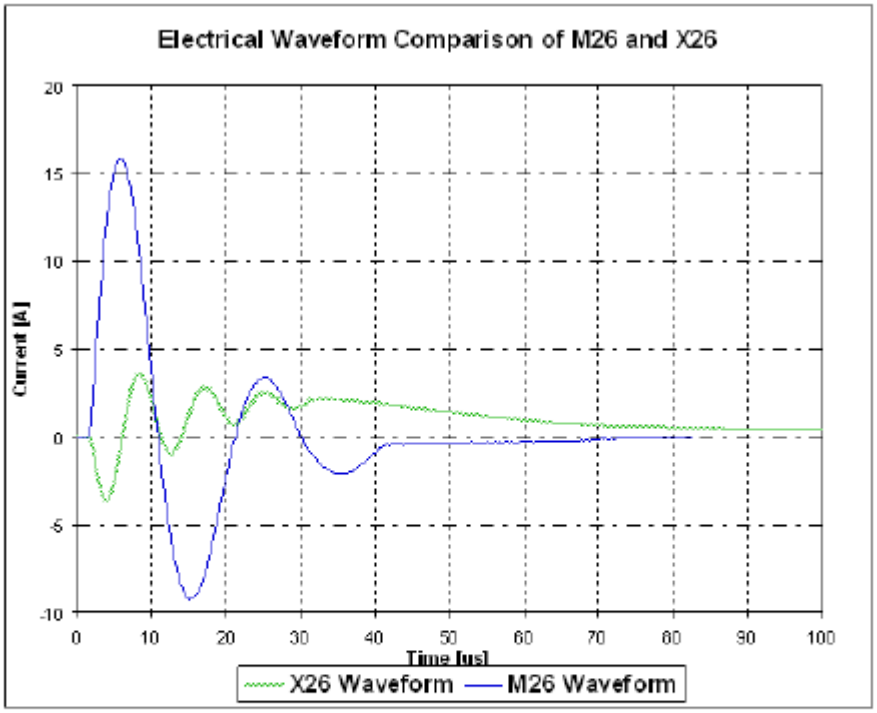

Figure 18 Comparison of Current Output of ADVANCED TASER M26 and TASER X26

Note that the TASER X26 uses a lower peak current than the ADVANCED TASER M26, but a longer pulse duration. As a result, the X26 delivers a roughly comparable amount of charge in each pulse. In laboratory experiments, the output of the **TASER X26 was designed to cause 5% stronger muscle contractions than the M26.** The X26 delivers roughly 110 microcoulombs per pulse, at a pulse rate of **19 pulses**

The Electric Shock Questions - Windows Internet Explorer

http://www.highvoltageconnection.com/articles/ElectricShockQuestions.htm

Physiological Effects

The following, table 1, is adapted from a table that appears on the Georgia State University website, among other sites. See references 1 and 2.

Table 1 Shock Physiological Effects

Electric Current (1 second contact)	Physiological Effect	Voltage required to produce the current with assumed body resistance	
		100,000 ohms	1,000 ohms
1 mA	Threshold of feeling, tingling sensation.	100 V	1 V
5 mA	Accepted as maximum harmless current	500 V	5 V
10-20 mA	Beginning of sustained muscular contraction ("Can't let go" current.)	1000 V	10 V
100-300 mA	Ventricular fibrillation, fatal if continued. Respiratory function continues.	10,000 V	100 V
6 A	Sustained ventricular contraction followed by normal heart rhythm. (defibrillation). Temporary respiratory paralysis and possibly burns.	600,000 V	6000 V

The Electric Shock Questions - Windows Internet Explorer

http://www.highvoltageconnection.com/articles/ElectricShockQuestions.htm

This data was influential in the safety portions of the U.S. National Electrical Code. Charles Dalziel, who compiled this table, and performed the experiments, is credited with patenting the ground-fault current interrupter. These devices are now commonly found in bathrooms, kitchens and outdoor electric circuits, and wh contribute to our safety.

Table 2 Quantitative Effects of Electric Current on Man
(Average data. See Reference 5)

Effects	Current, mA					
	Direct Current		Alternating Current			
	DC		60 Hz		10 kHz	
	Men	Women	Men	Women	Men	Women
Slight sensation on hand	1	0.6	0.4	0.3	7	5
Perception threshold, median	5.2	3.5	1.1	0.7	12	8
Shock—not painful and no loss of muscular control	9	6	1.8	1.2	17	11
Painful shock—muscular control lost by 1/2%	62	41	9	6	55	37
Painful shock—let-go threshold, median	76	51	16	10.5	75	50
Painful and severe shock—breathing difficult, muscular control lost by 99.5%	90	60	23	15	94	63
Possible ventricular fibrillation:						
Three-second shocks	500	500	100	100		
Short shocks (T in seconds)			165/(sq rt T)	165/(sq rt T)		
High-voltage surges (Energy in joules, i.e., watt-seconds)	50 J	50 J	13.6 J	13.6 J		

At levels where a shock does not do direct bodily harm, there are still ways to get seriously injured indirectly. As the shocked individual reacts voluntarily or involuntary (due to muscle contraction) to the shock by moving away, possibly very rapidly, he or she can fall over backwards, bang against a nearby chair or workbench, or just their hand against the chassis of the item they are working on


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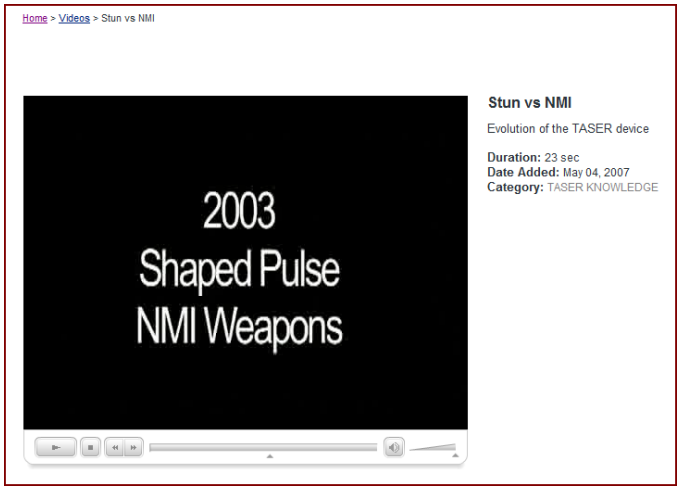
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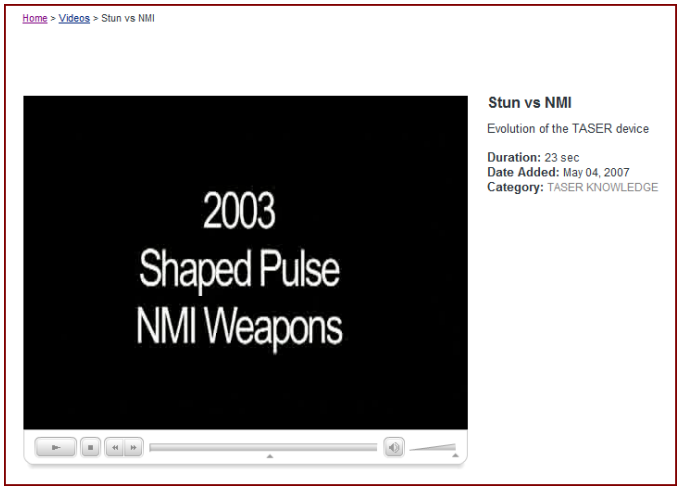
TASER X26
2003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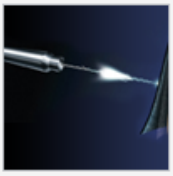
TASER X26
2003


TASER X26
2003

Law Enforcement Products: TASER® X26™ - Windows Internet Explorer

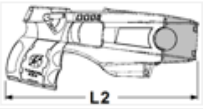
http://www.taser.com/products/law-enforcement/taser-x26-ecd#features



Shaped Pulse™ Technology

A sophisticated pulse wave that utilizes a high voltage leading edge to penetrate barriers such as clothing around the body followed by a lower voltage stimulation pulse to cause Neuro Muscular Incapacitation.

Weight	7.2 oz [
Dimensions w/ cartridge (L x W x H)	7.3" [18 [8.1 cm



Detailed Specifications

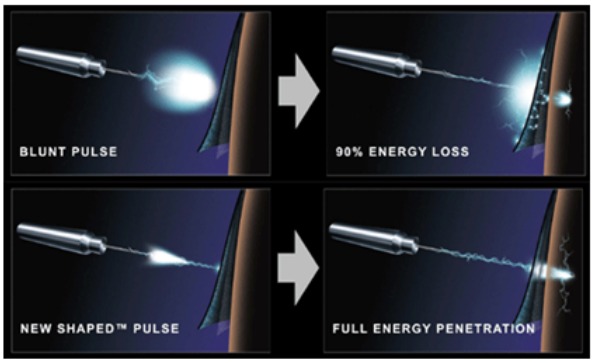
Housing	Hig

TASER X26C - Product Overview - Windows Internet Explorer

http://shop.fortresstactical.com/articles.asp?id=134

B. Shaped Pulse Technology

The Shaped Pulse generator is the technology revolution that made the X26 and C2 possible. Previous generation conducted energy weapons use a simple high-energy, "blunt" pulse to penetrate through the skin and clothing barriers that serve as protective armor around the body. Over 90% of the energy is lost in the process of barrier penetration. For this reason, high power levels (up to 26 watts) are required to generate NMI (Neuro Musclular Incapacitation), which requires large batteries that add weight and size to the device (18 ounces for the M26). Patented shaped pulse technology uses a highly refined energy pulse that concentrates a small portion of energy to first penetrate the barrier, while the majority of electrical charge is held in reserve, which then flows freely through the barrier, once the leading edge has penetrated. The Shaped Pulse is comprised of two pulse phases. The first phase, called the "Arc Phase" is optimized to generate a very high voltage to penetrate clothing, skin or other barriers. The Arc Phase is a very high voltage short duration pulse that can arc through up to 2 cumulative inches of clothing or barriers, or one inch per probe. Once the arc is created, the air in the arc is ionized, and becomes a low impedance electrical conductor that conducts the second pulse phase into the body. The second phase of the Shaped Pulse is the stimulation phase, or "Stim Phase". The Stim Phase does not have to arc across a barrier, since this was accomplished by the Arc Phase. The Stim phase only has to flow across the highly conductive arc from the Arc Phase. Hence, the Stim Phase is optimized to provide maximum incapacitation for a human target while operating at super-efficient power levels. The timing is so fast that to most electronic instrumentation, and all human observers, the Shaped Pulse appears as just one output pulse (arc). The result of Shaped Pulse NMI technology is an efficient, high-performance system with an incapacitating effect greater than the M26, in a unit that is 60% smaller, 60% lighter, and consumes 1/5th the power.



How Does a TASER® Work - Windows Internet Explorer

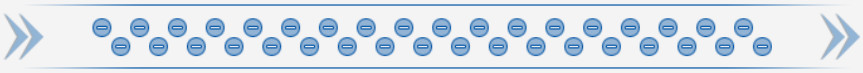
http://www.taser.com/research-and-safety/how-a-taser-works#electricity

How does a TASER ECD Work?

First, let's start with the basics:

What is Electricity?

ELECTRICITY IS THE FLOW OF ELECTRONS THROUGH A CONDUCTOR



	Unit	"Water Analagy"	"Water Unit"
Voltage (V)	Volt	Pressure	lbs / in^2
Current (I)	Ampere	Flow Rate	Gal / Second

Electricity is a flow of energy, or more specifically a flow of electric charge within a conductor. That conductor can be a copper wire, or it can be the human body. Much like water flows through a pipe, electrons flow through a wire. When we measure electricity, there are two key measures – Voltage, measured in Volts, and Current, measured in Amperes.

Voltage, which is also called Electro-Motive Force, is similar to the pressure in a water hose. The voltage provides the "pressure" to push an electric current through the wire.

Current is the measure of the actual flow of electricity – how many electrons are actually flowing through the wire.

In our analogy to flowing water, voltage is like pressure, measured in pounds per square inch. Current is the flow rate, similar to gallons per second in our water analogy.

How Does a TASER® Work - Windows Internet Explorer

http://www.taser.com/research-and-safety/how-a-taser-works#electricity

Current is the measure of the actual flow of electricity – how many electrons are actually flowing through the wire.

In our analogy to flowing water, voltage is like pressure, measured in pounds per square inch. Current is the flow rate, similar to gallons per second in our water analogy.

By way of analogy, let's compare a waterfall to rainfall. The pressure or voltage behind each droplet of water in the waterfall is actually a lot less than for each rain drop – because the rain drop is falling from a much greater height. So, the "voltage" of this waterfall is much less than for rain. However, the rate of flow or "current" for the waterfall is much, much higher than for the rain, which falls in small droplets separated in space and time compared to the continuous flow of the waterfall. Standing under the waterfall would certainly be a very dangerous place to be – much more so than in the rain. Similarly, being exposed to a high current electrical current – like the one out of your wall outlet, can be very dangerous, even at moderate voltages like 110 volts. Exposure to high voltage, low current shocks – such as a static discharge on a dry day, is far less dangerous. Static shocks regularly exceed 30,000 volts, yet they deliver very low amounts of electric charge, and there has never been a reported injury directly from the effects of a static shock, although there have been some secondary injuries from people who were surprised and may have fallen, etc.

Wall Outlet

Med Voltage: 110V

Continuous Current

High Current

Danger: High

TASER ECD

High Voltage: 5,000+ V

Pulsed Current

Low Current

Danger: Low

When we think about electricity, the first term to come to mind is usually "volts." This is because our electric power grid is a fixed voltage system, and is rated in volts.

However, when we talk about electric safety, the current in amperes is much more critical than voltage. For example, a TASER ECD has about a tenth of the peak current of a static shock.

FOR PUBLICATION

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

CARL BRYAN, *Plaintiff-Appellee,* v. BRIAN MCPHERSON; CORONADO POLICE DEPARTMENT; CITY OF CORONADO, a municipal corporation, *Defendants-Appellants.*	No. 08-55622 D.C. No. 3:06-CV-01487-LAB-CAB OPINION

Appeal from the United States District Court
for the Southern District of California
Larry A. Burns, District Judge, Presiding

Argued and Submitted
October 9, 2009—Pasadena, California

Filed December 28, 2009

Before: Harry Pregerson, Stephen Reinhardt and
Kim McLane Wardlaw, Circuit Judges.

Opinion by Judge Wardlaw

Graham v. Connor, 490 U.S. 386, 394 (1989); *Deorle v. Rutherford*, 272 F.3d 1272, 1279 (9th Cir. 2001). We ask "whether the officers' actions are 'objectively reasonable' in light of the facts and circumstances confronting them." *Graham*, 490 U.S. at 397. We must balance " 'the nature and quality of the intrusion on the individual's Fourth Amendment interests' against the countervailing governmental interests at stake." *Id.* at 396 (quoting *Tennessee v. Garner*, 471 U.S. 1, 8 (1985)); *see also Scott v. Harris*, 550 U.S. 372, 383 (2007). Stated another way, we must "balance the amount of force applied against the need for that force." *Meredith v. Erath*, 342 F.3d 1057, 1061 (9th Cir. 2003).

1. Nature and Quality of the Intrusion

We begin by analyzing the quantum of force—the type and amount of force—that Officer McPherson used against Bryan.[2] *See Deorle*, 272 F.3d at 1279; *Chew v. Gates*, 27 F.3d 1432, 1440 (9th Cir. 1994). Officer McPherson shot Bryan with a Taser X26 provided by the Coronado Police Department. The X26 uses compressed nitrogen to propel a pair of "probes"—aluminum darts tipped with stainless steel barbs connected to the X26 by insulated wires—toward the target at a rate of over 160 feet per second. Upon striking a person,[3] the X26 delivers a 1200 volt, low ampere electrical charge through the wires and probes and into his muscles.[4] The impact is as pow-

[2]Although the taser used by Officer McPherson was the X26 model, our holding applies to the use of all controlled electric devices that cause similar physiological effects.

[3]According to the manufacturer, the probes do not need to penetrate the skin of the intended target to result in a successful connection. The probes are capable of delivering their electrical charge through up to two inches of clothing. Here, Bryan was shirtless when confronted by Officer McPherson. As a result, one probe penetrated his skin.

[4]Tasers have been described as delivering a 50,000 volt charge. *See, e.g.*, *Brown v. City of Golden Valley*, 574 F.3d 491, 495 n.3 (8th Cir. 2009). While technically accurate, this does not entirely describe the elec-

erful as it is swift. The electrical impulse instantly overrides the victim's central nervous system, paralyzing the muscles throughout the body, rendering the target limp and helpless. *See Draper v. Reynolds*, 369 F.3d 1270, 1273 n.3 (11th Cir. 2004); *Hickey v. Reeder*, 12 F.3d 754, 757 (8th Cir. 1993). The tasered person also experiences an excruciating pain that radiates throughout the body. *See Lewis v. Downey*, 581 F.3d 467, 475 (7th Cir. 2009) ("[O]ne need not have personally endured a taser jolt to know the pain that must accompany it . . . ."); *Hickey*, 12 F.3d at 757.

[3] Bryan vividly testified to experiencing both paralysis and intense pain throughout his body when he was tasered. In addition, Officer McPherson's use of the X26 physically injured Bryan. As a result of the taser, Bryan lost muscular control and fell, uncontrolled, face first into the pavement. This fall shattered four of his front teeth and caused facial abrasions and swelling. Additionally, a barbed probe lodged in his flesh, requiring hospitalization so that a doctor could remove the probe with a scalpel. A reasonable police officer with Officer McPherson's training on the X26 would have foreseen these physical injuries when confronting a shirtless individual standing on asphalt. We have held that force can be unreasonable even without physical blows or injuries. *See, e.g.*, *Headwaters Forest Def. v. County of Humboldt*, 240 F.3d 1185, 1199 (9th Cir. 2000), *vacated and remanded on other grounds* 534 U.S. 801 (2001);[6] *Tekle v. United States*, 511

trical impulse encountered by a taser victim. According to the manufacturer, this 50,000 volt charge is needed to ensure that the electrical current can "jump" through the air or victim's clothing, thus completing a circuit. The manufacturer maintains, however, that the full 50,000 volts do not enter the victim's body; rather, it represents that the X26 delivers a peak voltage of 1,200 volts into the body.

[6]On remand from the Supreme Court in light of its then-recent opinion in *Saucier*, the *Headwaters* panel reaffirmed its earlier excessive force analysis. *See Headwaters Forest Def. v. County of Humboldt*, 276 F.3d 1125 (9th Cir. 2002).

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twenty-five feet away and not attempting to flee. Officer McPherson testified that he told Bryan to remain in the car, while Bryan testified that he did not hear Officer McPherson tell him to do so. The one material dispute concerns whether Bryan made any movement toward the officer. Officer McPherson testified that Bryan took "one step" toward him, but Bryan says he did not take any step, and the physical evidence indicates that Bryan was actually facing away from Officer McPherson. Without giving any warning, Officer McPherson shot Bryan with his taser gun. One of the taser probes embedded in the side of Bryan's upper left arm. The electrical current immobilized him whereupon he fell face first into the ground, fracturing four teeth and suffering facial contusions. Bryan's morning ended with his arrest[1] and yet another drive—this time by ambulance and to a hospital for treatment.

towards the officer.[8] Second, even if Bryan had taken a single step toward Officer McPherson, this would not have rendered him an immediate threat justifying an intermediate level of force, as he still would have been roughly nineteen to twenty-four feet away from Officer McPherson, by the officer's own estimate.

[10] Not only was Bryan standing, unarmed, at a distance of fifteen to twenty-five feet, but the physical evidence demonstrates that Bryan was not even facing Officer McPherson when he was shot: One of the taser probes lodged in the side of Bryan's arm, rather than in his chest, and the location of the blood on the pavement indicates that he fell away from the officer, rather than towards him.[9] An unarmed, stationary individual, facing away from an officer at a distance of fifteen to twenty-five feet is far from an "immediate threat" to that officer. Nor was Bryan's erratic, but nonviolent, behavior a potential threat to anyone else, as there is no indication that there were pedestrians nearby or traffic on the street at the time of the incident.[10] Finally, while confronting Bryan, Officer McPherson had unholstered and charged his X26, placing

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http://www.cbc.ca/news/canada/story/2009/03/18/f-taser-faq.html

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