SurgeGate

Enduring Surge Protection

Introducing
a Whole New Category of Power Protection

LINE FAULT   UNSAFE VOLTA[GE]

GROUND OK   POWER / PROTECTION OK

SurgeGate

ON   OFF

Go Beyond Surge Suppressors

The new SurgeGate™ from ITW Linx brings you a higher level of protection from power fluctuation hazards. It makes surge suppressors obsolete.

It saves you money on service calls.
It increases your system uptime.
It protects your equipment when surge protectors don't.
SurgeGate is totally unique:
The ONLY power protector to close the gate on both over-voltage and under-voltage
The ONLY power protector to automatically reset when the power returns to normal
The ONLY power protector to protect its own circuitry

ITW Linx®

	Severe or Extended Surge	Typical Surge	After Many Surges	Under-Voltage
SurgeGate Alone	• Power shut off avoids system damage • Power resets after surge	• Immediate surge suppresion • SurgeGate protects suppresion circuits	• Immediate surge suppresion • SurgeGate protects suppresion circuits	• Immediate surge suppresion • SurgeGate protects suppresion circuits
Conventional Surge Suppressor Alone	• Surge suppresor destroyed • Catastrophic system failure	• Immediate surge suppression • Suppression circuit degenerates over time	• Suppression circuit fails • SurgeGate protects suppression circuits	• No protection from surge suppressor • System malfunction or damage
SurgeGate + UPS	• Power shut off • Power reset • UPS keeps your system up & running	• Immediate surge suppression • SurgeGate protects suppression circuits	• Immediate surge suppression • SurgeGate protects suppression circuits	• Power shut off • Power reset • UPS keeps your system up & running
Conventional Surge Suppressor + UPS	• Surge suppressor destroyed • Possible UPS failure • Possible system damage	• Immediate surge suppression • Suppression circuit degenerates over time	• Supression circuit fails • Suppression circuit in UPS degenerates • Possible system damage	• No protection from surge suppressor • UPS keeps your system up & running
UPS Alone	• Possible UPS damage • Possible system damage or failure	• Immediate surge suppression • UPS suppression circuit degenerates over time	• UPS suppression circuit fails • System damage or failure	• UPS keeps your system up & running
No Protection	• Catastrophic system failure	• System damage	• System failure	• System malfunction or damage

SurgeGate™ Technology Shuts Down Power Damage

1. Over-voltage: DISCONNECT power

2. Safe voltage: RECONNECT power

3. Under-voltage: DISCONNECT power

4. Safe voltage: RECONNECT power
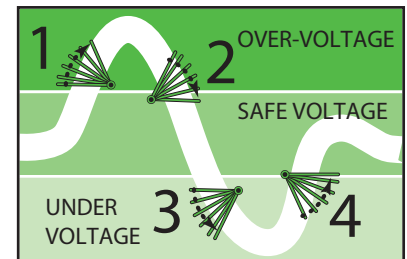
SurgeGate Benefits Installers

If you install telecomm and/or IT systems, unnecessary service calls can undercut the profits of your service contracts. SurgeGate eliminates many power-related service calls because it resets itself. And the increased uptime for your customers reflects well on you!

SurgeGate Benefits Users

If it's your equipment, you want increased uptime and lowered expense. SurgeGate provides both. It protects your systems, automatically resets, and lasts years longer than a conventional surge suppressor.

Why Gamble?

Electronic equipment is subject to about one hundred twenty power anomalies per month.* These are caused by lightning, transformer changes on the power grid, electric motors starting up or shutting down, static electricity or power line crosses. Voltage sags and brownouts pose an equal threat. Can you afford damage to your equipment when your business depends upon it? Visit www.surgegate.com to see SurgeGate and conventional surge suppressors in action on video.

*Source: IBM study conducted at 200 locations across the US.

Typical Service Call Expenses

□ Low-End Cumulative
■ High-End Cumulative

The First REAL Protection Against Electrical Damage

AC POWER

Utility power suffers approximately 120 surges/sags per month.

COMMON GROUND

The **SurgeGate** tests your line for a reliable ground, and it shares that ground with the add-on modules for a highly effective protective system.

Patented! All new! SurgeGate technology allows only safe power through. If the voltage rises above 147V or dips below 87V, SurgeGate cuts it off within milliseconds.

1 OVER-VOLTAGE 2
SAFE VOLTAGE
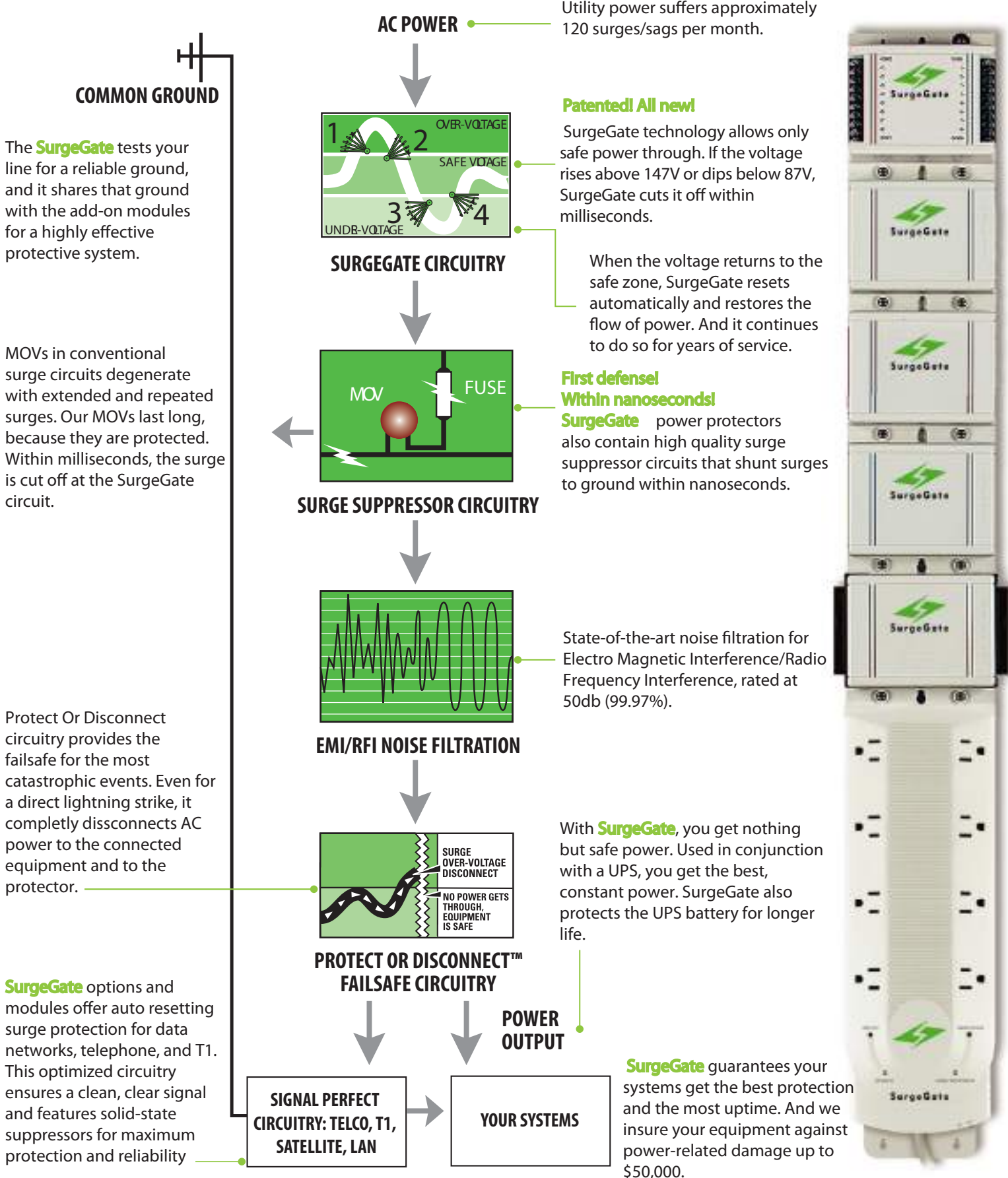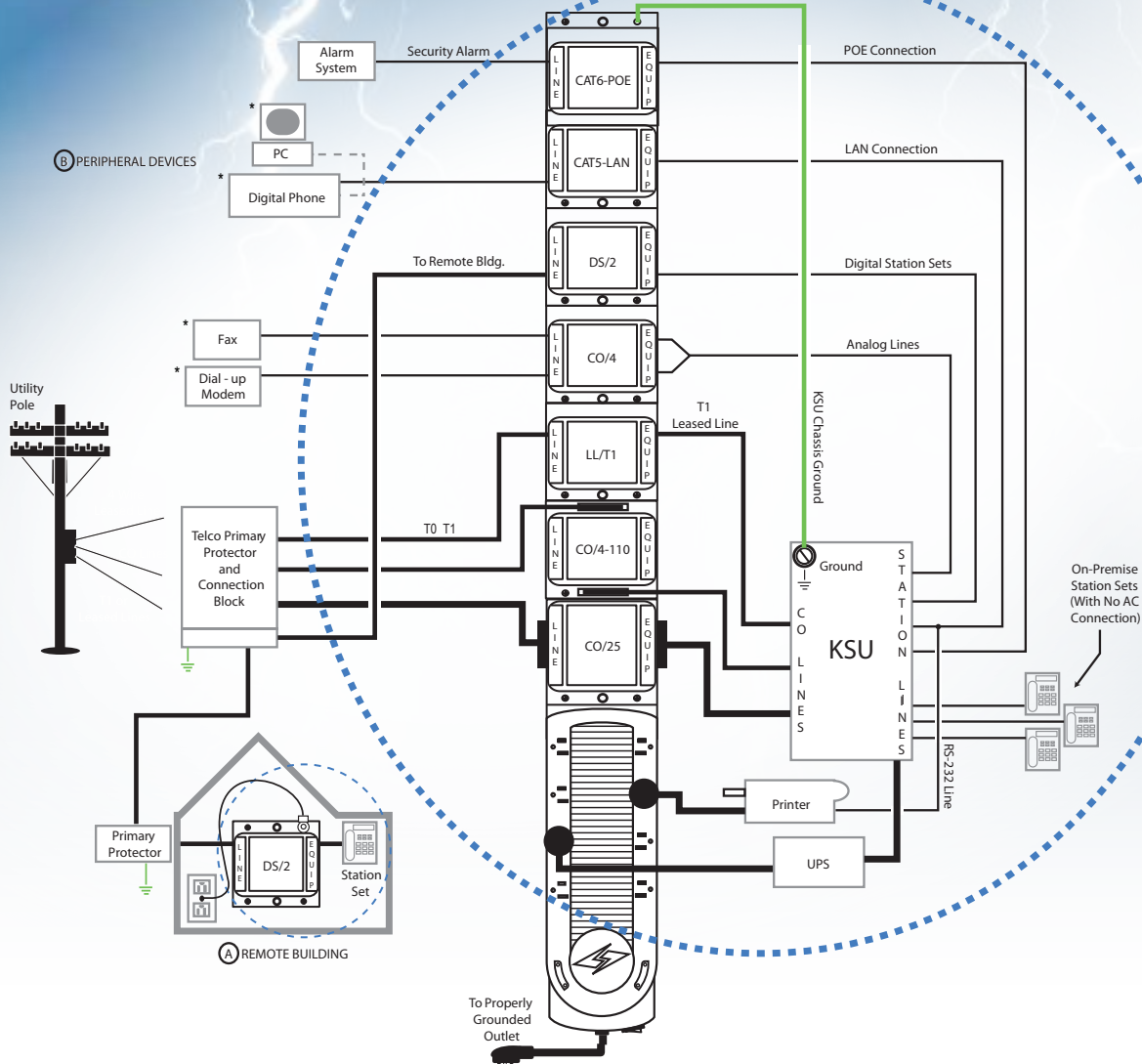3 UNDER-VOLTAGE 4

SURGEGATE CIRCUITRY

When the voltage returns to the safe zone, SurgeGate resets automatically and restores the flow of power. And it continues to do so for years of service.

MOVs in conventional surge circuits degenerate with extended and repeated surges. Our MOVs last long, because they are protected. Within milliseconds, the surge is cut off at the SurgeGate circuit.

MOV   FUSE

SURGE SUPPRESSOR CIRCUITRY

First defense! Within nanoseconds! SurgeGate power protectors also contain high quality surge suppressor circuits that shunt surges to ground within nanoseconds.

EMI/RFI NOISE FILTRATION

State-of-the-art noise filtration for Electro Magnetic Interference/Radio Frequency Interference, rated at 50db (99.97%).

Protect Or Disconnect circuitry provides the failsafe for the most catastrophic events. Even for a direct lightning strike, it completly dissconnects AC power to the connected equipment and to the protector.

SURGE OVER-VOLTAGE DISCONNECT

NO POWER GETS THROUGH, EQUIPMENT IS SAFE

PROTECT OR DISCONNECT™ FAILSAFE CIRCUITRY

With **SurgeGate**, you get nothing but safe power. Used in conjunction with a UPS, you get the best, constant power. SurgeGate also protects the UPS battery for longer life.

POWER OUTPUT

SurgeGate options and modules offer auto resetting surge protection for data networks, telephone, and T1. This optimized circuitry ensures a clean, clear signal and features solid-state suppressors for maximum protection and reliability

SIGNAL PERFECT CIRCUITRY: TELCO, T1, SATELLITE, LAN

YOUR SYSTEMS

SurgeGate guarantees your systems get the best protection and the most uptime. And we insure your equipment against power-related damage up to $50,000.

AC SurgeGate™ Bubble of Protection

SurgeGate
Enduring Surge Protection

Alarm System

Security Alarm

POE Connection

B PERIPHERAL DEVICES

PC

LAN Connection

Digital Phone

CAT6-POE
CAT5-LAN
DS/2
CO/4
LL/T1
CO/4-110
CO/25

LINE / EQUIP

To Remote Bldg.

Digital Station Sets

Fax

Dial - up Modem

Analog Lines

Utility Pole

T1 Leased Line

KSU Chassis Ground

Telco Primary Protector and Connection Block

T0 T1

Ground

KSU

CO LINES

STATION LINES

On-Premise Station Sets (With No AC Connection)

RS-232 Line

Printer

UPS

Primary Protector

DS/2

LINE / EQUIP

Station Set

A REMOTE BUILDING

To Properly Grounded Outlet

Features:

- AC protection for telecomm & computer systems
- Patented SurgeGate circuitry
- Protect or disconnect circuitry
- Expandable protection using SurgeGate modules

- Diagnostic indicator lights (four)
- Eight foot power cord with right angle plug
- EMI/RFI noise filtration
- 50,000 Connected Equipment Warranty

* To protect equipment marked (*) additional protectors are required.

TECHNICAL SPECIFICATIONS

	4/8 outlet	2 outlet
Model Number	M4KSU/M8KSU/M8COM/M4L-POE	M2T
Agency Approval	UL 1363, 1449	UL 1363, 1449
LED Indicators	4	2
Grounding Requirements	Uses Electrical AC Ground	Uses Electrical AC Ground
Product Warranty	Lifetime	Lifetime
Connected Equipment Warranty	Up to $50,000	
Width / Height / Depth / Weight		3.5" / 5.5" / 2" / 0.74 lbs

AC POWER PROTECTION:

Thermal Fusing	Yes	Yes
Catastrophic Surge Circuit	Yes	Yes
Overvoltage Voltage Shutoff	147V ±8V	
Undervoltage Voltage Shutoff	87V ±8V	
Single Pulse Energy Dissipation	1650 Joules	1350 Joules
Peak Impulse Current	52,000 A	52,000 A
EMI/RFI Noise Filtration	50db (99.7%)	50db (99.97%)
Line Voltage	120V (50/60Hz)	120V (50/60Hz)
Initial Clamping Level	200V Peak, 141 Rms	200V Peak, 141 Rms
UL 1449 Rating	330V	400V
Protection Modes	L-N, L-G, N-G	L-N, L-G, N-G
Maximum Current Rating	15A (1800W)	15A (1800W)
Response Time	1–5 Nanoseconds	1-5 Nanoseconds
Number of Outlets		2

SIGNAL LINE SURGE PROTECTION:

TELCO CIRCUIT PROTECTION (if included)

Signal Perfect Circuitry	Yes	Yes
Fuseless/Auto-Resettable	Yes	Yes
Clamping Level	260V	260V
Response Time	1–5 Nanoseconds	1–5 Nanoseconds
Capacitance	<50pF	<20pF
Suppression Modes	Metallic & Longitudinal	Metallic & Longitudinal
Wires Protected	2-wire, 1-pair (pins 3, 4)	2-wire, 1-pair
Termination Type	RJ-11	RJ-11/45

SIGNAL LINE SURGE PROTECTION (Telco &T1/LL)

Signal Perfect Circuitry/Fuseless	Yes	
Clamping Level (TELCO)/(T1LL)	260V/70V	
Response Time	1–5 Nanoseconds	
Capacitance (TELCO)/(T1LL)	<50pF	
Suppression Modes	Metallic & Longitudinal	
Wires Protected (TELCO)	1 pair per jack, total 5 Telco jack (pins 4, 5)	
(T1/LL)	Pins 1, 2, 4, 5	
Termination Type (TELCO)	RJ-11/45	
(T1/LL)	RJ-45	
(POE)	RJ45 65V Clamping (M4L-POE)	

LAN CIRCUIT PROTECTION (if included)

Signal Perfect Circuitry	Yes	
Fuseless/Auto-Resettable	Yes	
Performance Rating	Category 5	
Clamping Level	7V	
Response Time	1–5 Nanoseconds	
Wires Protected	8-wires (pins 1–8)	
Termination Type	RJ-45	

4-outlet

Model M4L-POE with one POE (Power Ethernet) line protection

2-outlet

Model M2T 2-outlet AC protector, with Protect or Disconnect circuitry and integrated cable management. Plus protection for one telephone or DSL Line.

4-outlet

Base unit Model M4KSU features four switched AC power outlets.

8-outlet

Base unit Model M8KSU features eight AC power outlets.

8-outlet

Model M8COM adds telephone protection for four voice or DSL lines; T1 protection for one T1 or LL line; LAN protection for one 10/100BASE-T Ethernet line.

Modular Protection
TELCO CIRCUIT PROTECTION

SurgeGate
Enduring Surge Protection

Product Specifications:

Agency Approval	(unless otherwise noted) UL 497A (Secondary)
Grounding Requirements	Uses AC Ground via SurgeGate Base Units
Recommended Ground Impedance	<0.5 Ohm
Width	(unless otherwise noted) 4.25"
Height	(unless otherwise noted) 4.25"
Depth	1.5"
Signal Perfect Circuitry	Yes
Auto-Resetting PTCs	160 mA (8–10 Ohms)
Clamping Level	(unless otherwise noted) 260V (T-R, T-G, R-G)
Response Time	1–5 Nanoseconds
Capacitance	< 50pF
Suppression Mode	(unless otherwise noted) Metallic and Longitudinal

Features:

• Auto-Resetting Technology—PTC resistors open when a surge occurs, protecting your equipment, but unlike fuses, the PTCs close again once the surge passes. Less downtime, and less service calls.

• Expandable System Protection—SurgeGate Series Base Units and Modules can be attached to expand system protection as your system grows.

• Lifetime Product Warranty.

• $50,000 Connected Equipment Warranty— This ITW Linx product will protect your equipment or we will repair or replace it up to $50,000!

Product Specifications:

MCO4—ANALOG STATION SET AND CENTRAL OFFICE LINE PROTECTOR	Protects up to 4-wires (2-pairs) using RJ-11/45 connectors (2 In/2 Out, Pins 3 & 6 and 4 & 5 protected).
MCO4X4—ANALOG STATION SET AND CENTRAL OFFICE LINE PROTECTOR	Protects up to 4-wires (2-pairs) using RJ-11/45 connectors, one line protected per jack (pins 4, 5).
MCO25—ANALOG STATION SET AND CENTRAL OFFICE LINE PROTECTOR	Protects 25-pairs using RJ-21X (Amphenol) connectors (pins 1–50, Male In / Female Out). Height: 5.87"
MCO4110—ANALOG STATION SET AND CENTRAL OFFICE LINE PROTECTOR	Protects up to 8-wires (4-pairs) using 110 punchdown block on the input and 110 punchdown block or four RJ-11 or two RJ-45 on the Output. Width: 5.87"
MCO8110—ANALOG STATION SET AND CENTRAL OFFICE LINE PROTECTOR	Protects up to 16-wires (8-pairs) using 110 punchdown block on the Input and 110 punchdown block on the Output. Width: 5.87"
MDS25—DIGITAL STATION SET PROTECTOR	Protects up to 25 2-wire or up to 12 4-wire digital stations lines using RJ-21X (Amphenol) connectors (pins 1–50, Male In / Female Out). Height: 5.87" Clamping Level 110V (T-G, R-G, T-R)
MLLT1—HIGH-SPEED DIGITAL T1 OR LEASED LINE PROTECTOR	Protects up one T1 or ISDN line per port using RJ-48C/48S connectors. T1/LL—2-pairs (pins 1, 2 & 4, 5); ISDN—BRI/PRI compatible. Clamping Level: 70V; Wires Protected: 4-wires, 2-pairs per jack (pins 1, 2 & 4, 5)

SurgeGate
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Product Specifications:

Agency Approval	UL Primary (497) and Isolated Loop (497B)
Grounding Requirements	Uses AC Ground via SurgeGate Base Units
Recommended Ground Impedance	<0.5 Ohm
Width	4.25"
Height	4.25"
Depth	1.5"
Signal Perfect Circuitry	Yes
Fuseless/Auto-Resettable	Yes
Response Time	1–5 Nanoseconds
Capacitance	< 20pF

Features:

- UL Listed for Primary (497) and Isolated Loop (497B) applications.
- CAT6 products exceed TIA/EIA Standards 568 and 758 for category 5e performance.
- CAT6 products exceed TIA/EIA Standards 568B.2-1 and 758 for category 6 performance.
- Solid-state protection provides the fastest response to transient voltages (1-5 nanoseconds) by quickly diverting damaging surges to ground.
- Use between buildings in a campus environment as a building entrance protector or in a hostile industrial applications as an isolated loop protector.
- Expandable System Protection - SurgeGate Series Base Units and Modules can be attached to expand system protection as your system grows.
- Lifetime Product Warranty.
- $50,000 Connected Equipment Warranty-This ITW Linx product will protect your equipment or we will repair or replace it up to $50,000!
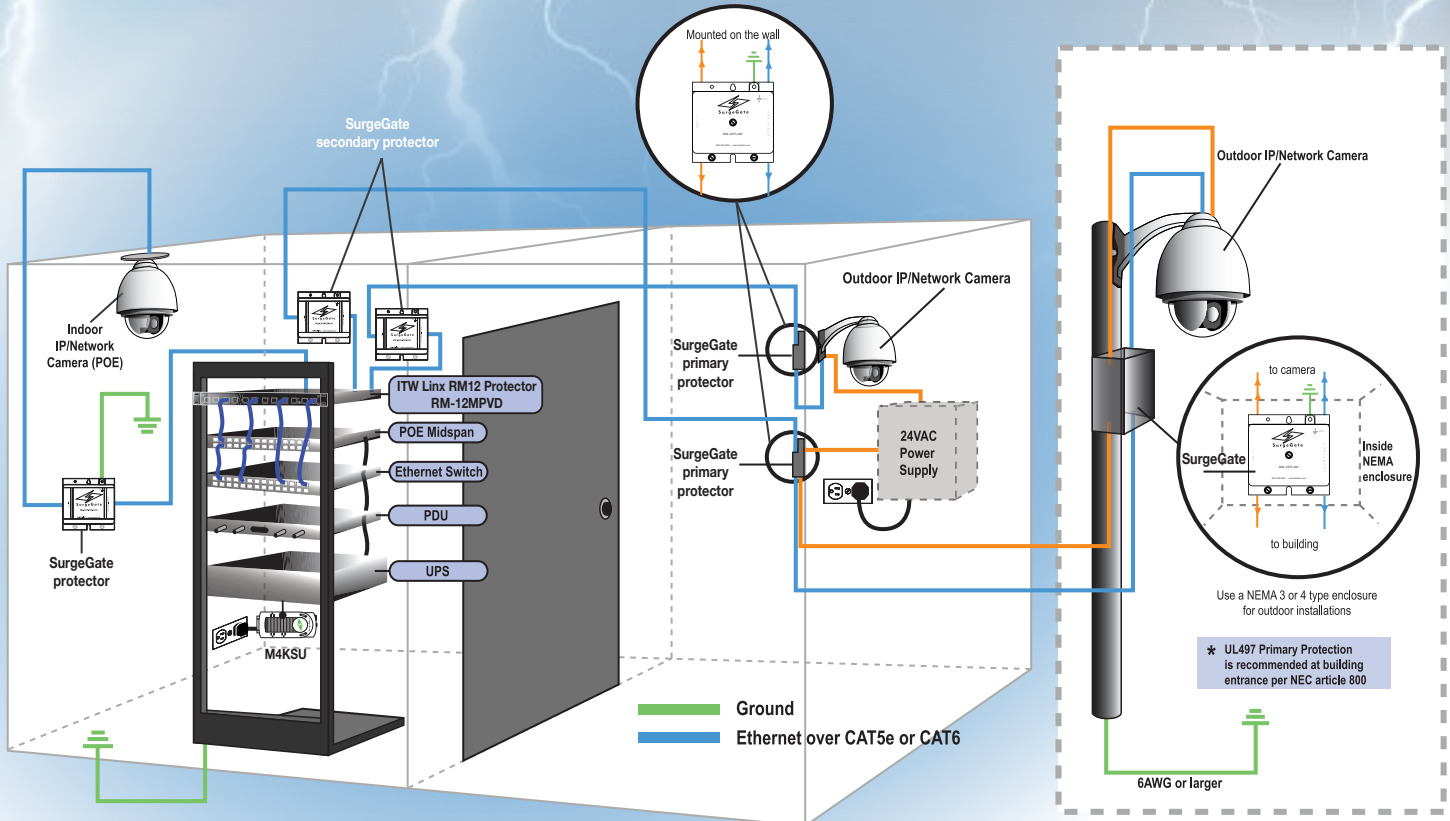
Product Specifications:

CAT6-75-RJ45 POE 110/RJ45	Protects high-performance (4 Pair) CAT6 + CAT5e Outside Plant Cables as well as Category 5e UTP cables for Power Over Ethernet applications. For mid-span applications where power and data are seperate. Clamping level: 75V, Type: 110 IN RJ-45 OUT
CAT6-75 - RJ45 / POE	Protects high-performance (4 Pair) CAT6 + CAT5e Outside Plant Cables as well as Category 5e UTP Cables for voice or ISDN low-voltage (digital, 75V clamping) applications. Termination Type (CAT6): Termination Type RJ45 IN + OUT
CAT6-LAN-RJ45	Protects (4 Pair) CAT5e + CAT6 RJ45, 16V, Termination RJ45 IN + OUT
CAT6-235	Protects (4 Pair) CAT5e + CAT6, voice / ISDN / Analog, 110 Punchdown IN + OUT, 235V clamping
CAT6-235-RJ45	Protects (4 Pair) CAT5e + CAT6 for voice / ISDN / Analog, RJ45 IN + OUT, 235V clamping
CAT6-LAN	Protects (4 Pair) CAT5e + CAT6, 110 Punchdown IN + OUT, 16V clamping
CAT6-75	Protects (4 Pair) CAT5e + CAT6 rated cable, 110 Punchdown IN + OUT, 75V clamping (POE)
CAT6A-LAN	Protects (4 Pair) CAT6A outside plant cables + CAT6A UTP cables for LAN/DATA applications, 16V clamping 110 Punchdown IN + OUT
CAT6-LAN-MM	Protects (4 Pair), Solid State CAT5e + CAT6-LAN application with 16 volts clamping voltage, Metal Housing RJ45 IN + OUT
CAT6-75/POE-MM	Protects (4 Pair), Solid State CAT5e + CAT6 with 75 clamping voltage for digital / POE applications, Metal Housing RJ45 IN + OUT
CAT6-235-MM	Protects (4 Pair), Solid State CAT5e + CAT6 with 235 clamping voltage for T1, Telco and analog lines, Metal Housing RJ45 IN + OUT

IP/NETWORK CAMERA SURGE PROTECTION

SurgeGate
Enduring Surge Protection

Mounted on the wall

SurgeGate secondary protector

Indoor IP/Network Camera (POE)

ITW Linx RM12 Protector RM-12MPVD

POE Midspan

Ethernet Switch

PDU

UPS

M4KSU

SurgeGate protector

Outdoor IP/Network Camera

SurgeGate primary protector

SurgeGate primary protector

24VAC Power Supply

Ground

Ethernet over CAT5e or CAT6

Outdoor IP/Network Camera

to camera

SurgeGate

Inside NEMA enclosure

to building

Use a NEMA 3 or 4 type enclosure for outdoor installations

∗ UL497 Primary Protection is recommended at building entrance per NEC article 800

6AWG or larger

SurgeGate Protectors:

Part Number:	Description:
RM-12MPVD (Housing) or RM6-MPVD	Modular Rack - up to 12 individual protection modules
RM12-CAT6-LAN	Protection Module, Solid State CAT6-LAN application with 16 volts clamping voltage
RM12-CAT6-75/POE	Protection Module, Solid State CAT6 with 75 clamping voltages for digital / POE applications
RM12-CAT6-235	Protection Module, Solid State CAT6 with 235 clamping voltage for T1, Telco and analog lines

SurgeGate™ Modular Wall Mount

Features:

- UL Listed for Primary (497) and Isolated Loop (497B) applications

- Exceeds TIA/EIA Standards 568 and 758 for CAT 5e and CAT 6 (depending on module ordered) performance

- Solid-state protection provides the fastest response to transient voltages (1-5 nanoseconds) by quickly diverting damaging surges to ground

- Use between buildings in a campus environment as a building entrance protector or in hostile industrial applications as an isolated loop protector

- Up to 6 individual and replaceable port modules

- RJ45 input to RJ45 output

- Single-height wall mountable chassis (1U) - Protectors sold separately dependant on application

- Suggested Applications Include: Security cameras, POE, Phone systems, Ethernet, & VOIP

SurgeGate
Enduring Surge Protection

TECHNICAL SPECIFICATIONS

PRODUCT SPECIFICATIONS:

Agency Approval	UL Primary (497) and Isolated Loop (497B)
Grounding Requirements	Field installed solid copper wire #6 AWG for Primary #14 AWG for Isolated Loop
Recommended Grounding Impedance	<0.5 0hm
Height/Width/Depth	2.1 / 4.0 / 10.25
Weight w/o Modules	2.0lbs.
Product Warranty	Lifetime
Connected Equipment Warranty	Up to $5,000

SINGLE LINE SURGE PROTECTION: (LAN)

Signal Perfect Circuitry	Yes
Fused	No
Performance Rating	CAT5e/CAT6 (Gigabit) Depending on Module Ordered
Clamping Level	CAT5 or CAT6 LAN = 16V CAT5e or CAT6 75/POE = 75V CAT5e or CAT6 235 = 235V
Response Time	1-5 Nanoseconds
Capacitance	<20pF
Wires Protected	8-wires, 4-pairs per port
Termination Type	RJ-45 In & Out

ORDERING INFORMATION

Part Number	Description
RM-6MPVD	Modular Wall - up to 6 individual protection modules
RM12-CAT6-LAN	Protection Module, Solid State CAT6-LAN application with 16 volts clamping voltage
RM12-CAT6-75/POE	Protection Module, Solid State CAT6 with 75 clamping voltage for digital / POE applications
RM12-CAT6-235	Protection Module, Solid State CAT6 with 235 clamping voltage for T1, Telco and analog lines

Questions about ordering? Please contact us at 1-800-278-5666 / Contact an authorized distributor for pricing (MOQ:6)

SurgeGate
Enduring Surge Protection

TECHNICAL SPECIFICATIONS

PRODUCT SPECIFICATIONS:

Agency Approval	UL Primary (497) and Isolated Loop (497B)
Grounding Requirements	Field installed solid copper wire #6 AWG for Primary #14 AWG for Isolated Loop
Recommended Grounding Impedance	<0.5 0hm
Height/Width/Depth	1.7"/19"/4.0"
Weight w/o Modules	2.9lbs.
Product Warranty	Lifetime
Connected Equipment Warranty	Up to $5,000

SINGLE LINE SURGE PROTECTION: (LAN)

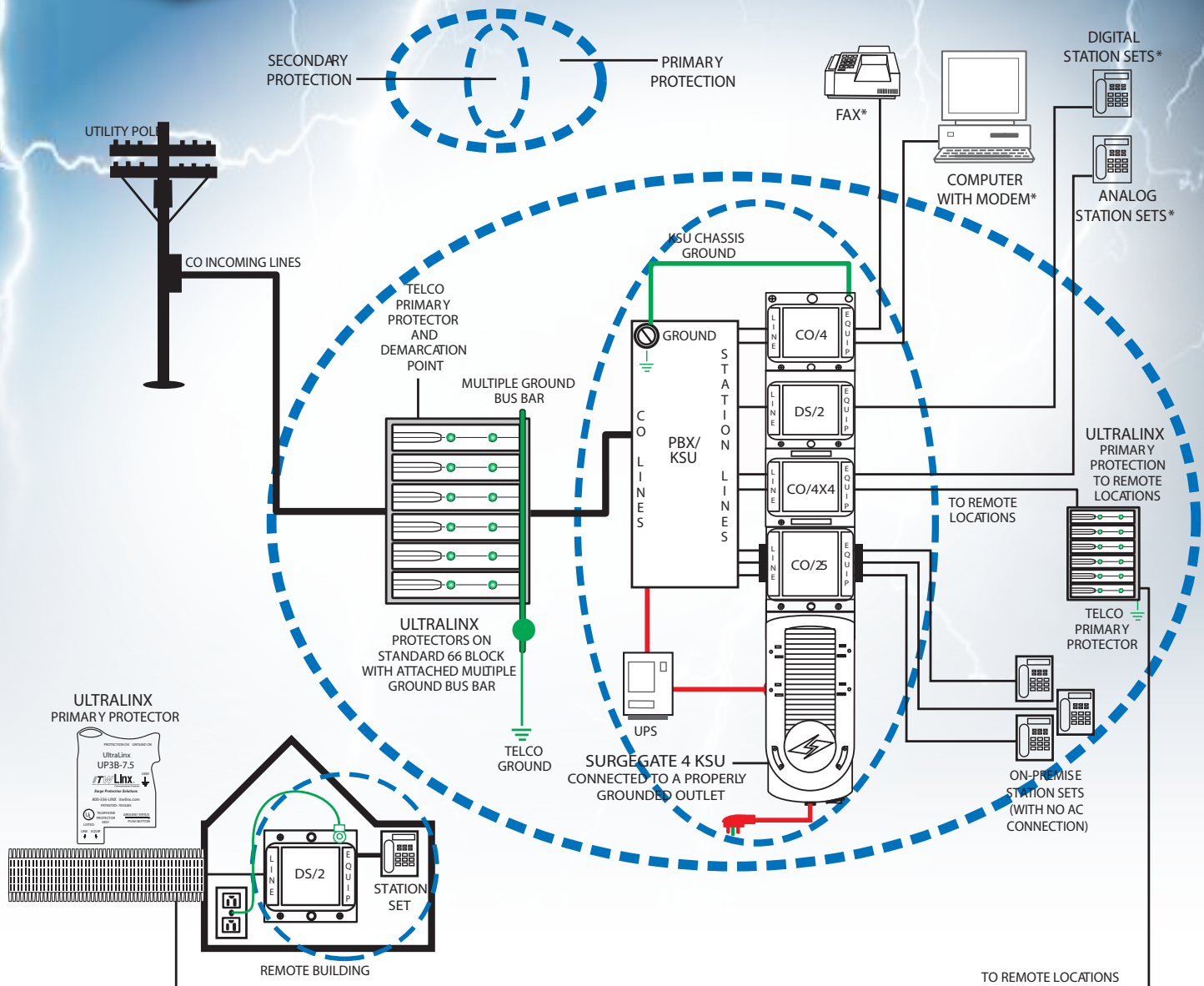|	
Signal Perfect Circuitry	Yes
Fused	No
Performance Rating	CAT5e/CAT6 (Gigabit) Depending on Module Ordered
Clamping Level	CAT5 or CAT6 LAN = 16V CAT5e or CAT6 75/POE = 75V CAT5e or CAT6 235 = 235V
Response Time	1-5 Nanoseconds
Capacitance	<20pF
Wires Protected	8-wires, 4-pairs per port
Termination Type	RJ-45 In & Out

Features:

- UL Listed for Primary (497) and Isolated Loop (497B) applications
- Exceeds TIA/EIA Standards 568 and 758 for CAT 5e and CAT6 (depending on module ordered) performance
- Solid-state protection provides the fastest response to transient voltages (1-5 nanoseconds) by quickly diverting damaging surges to ground
- Use between buildings in a campus environment as a building entrance protector or in hostile industrial applications as an isolated loop protector
- Up to 12 individual and replaceable port modules
- RJ45 input to RJ45 output
- Single-height rack mountable chasis (1U)

ORDERING INFORMATION

Part Number	Description
RM-12MPVD	Modular Rack - up to 12 individual protection modules
RM12-CAT6-LAN	Protection Module, Solid State CAT6-LAN application with 16 volts clamping voltage
RM12-CAT6-75/POE	Protection Module, Solid State CAT6 with 75 clamping voltage for digital / POE applications
RM12-CAT6-235	Protection Module, Solid State CAT6 with 235 clamping voltage for T1, Telco and analog lines

SurgeGate
Enduring Surge Protection

SECONDARY PROTECTION

PRIMARY PROTECTION

DIGITAL STATION SETS*

FAX*

COMPUTER WITH MODEM*

ANALOG STATION SETS*

UTILITY POLE

CO INCOMING LINES

KSU CHASSIS GROUND

TELCO PRIMARY PROTECTOR AND DEMARCATION POINT

MULTIPLE GROUND BUS BAR

GROUND

CO/4
DS/2
CO/4X4
CO/25

LINE — EQUIP

CO LINES

STATION LINES

PBX/ KSU

ULTRALINX PRIMARY PROTECTION TO REMOTE LOCATIONS

TO REMOTE LOCATIONS

ULTRALINX PROTECTORS ON STANDARD 66 BLOCK WITH ATTACHED MULTIPLE GROUND BUS BAR

TELCO PRIMARY PROTECTOR

TELCO GROUND

UPS

SURGEGATE 4 KSU CONNECTED TO A PROPERLY GROUNDED OUTLET

ON-PREMISE STATION SETS (WITH NO AC CONNECTION)

ULTRALINX PRIMARY PROTECTOR

PROTECTION OK   GROUND OK

UltraLinx
UP3B-7.5

ITW Linx
Surge Protector Solutions
800-336-LINX itwlinx.com
PATENTED, 7055280

TELEPHONE PROTECTOR UNIT

GROUND STATUS PUSH BUTTON

LISTED

LINE   EQUIP

LINE — EQUIP

DS/2

STATION SET

REMOTE BUILDING

TO REMOTE LOCATIONS

Features:

- Dual Indicator Lights - Protection OK and Ground Connection OK

- Solid-state Protection - Provides the fastest response

- Single Pair Protection - Scale the protection to the system size. Protect only the lines requiring protection

- Streamlined Installation- Eliminate redundant cross-connects by adding protection directly at the 66 Block. Press fit protectors to the block and attach the ground bar to the protectors. MGBSGL-1 Comes with Screw Ground Lug.

- Sneak Current Protection - Protects against fires caused by overloads and power crosses

- Cost Savings - Eliminate expensive five-pin blocks and use economical 66 Blocks

- Optimum Protection - Available in a number of voltage ratings to match system operating voltages

- Ideal for Retrofit Applications - Just remove the bridging clips from the block & replace them with the UltraLinx Protector, add the ground connection and the pair is protected

- Lifetime Product Warranty - This surge protector shall be free of any defects in design, materials, or workmanship, or ITW Linx will repair or replace the defective product

TECHNICAL SPECIFICATIONS

	UP3B	UP3P
Agency Approval	UL 497 (Primary), 497A (Secondary)	UL 497A (Secondary)
LED Indicators / Sneak Current Protection	Yes	Yes
Grounding Requirements	Field installed solid copper wire	Field installed solid copper wire
	for Primary 1-6 pairs 10 AWG	for Secondary 1-6 pairs 14 AWG
	for Primary 7-25 pairs 6 AWG	for Secondary 7-25 pairs 6 AWG
	for Secondary 1-6 pairs 14 AWG	
	for Secondary 7-25 pairs 6 AWG	
Recommended Grounding Impedance	<0.5 Ohm	<0.5 Ohm
PTC Rating		160mA (8-10 Ohms)
Fuse Rating	350mA	
	1.6 Ohms	
Applications	Data / Voice / Fax / Modem lines	Data / Voice / Fax / Modem lines
Width / Height / Depth / Weight	1.88" / 2.62" / 0.38" / 0.04 lbs	1.88" / 2.62" / 0.38" / 0.04 lbs
Product Warranty	Lifetime	Lifetime

SIGNAL LINE SURGE PROTECTION: (TELCO)		
Signal Perfect Circuitry	Yes	Yes
Auto-Resettable		Yes
Clamping Level	7.5V, 16V, 27V, 39V, 75V, 100V, 235V	27V, 39V, 75V, 235V
Response Time	1-5 Nanoseconds	1-5 Nanoseconds
Capacitance	<50pF	<50pF
Suppression Modes	Metallic & Longitudinal	Metallic & Longitudinal
Wires Protected	2-wires, 1-pair	2-wires, 1-pair
Termination Type	66 type M Blocks	66 type M Blocks

UP3P

ORDERING INFORMATION

ITW Linx Part Number	Description
UP3P-27	UL Secondary listed with 160mA PTC for voice / fax / modem lines (27V).
UP3P-39	UL Secondary listed with 160mA PTC for voice / fax / modem lines (39V).
UP3P-75	UL Secondary listed with 160mA PTC for voice / fax / modem lines (75V).
UP3P-235	UL Secondary listed with 160mA PTC for voice / fax / modem lines (235V).

UP3B

UP3B-7.5	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (7.5V).
UP3B-16	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (16V).
UP3B-27	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (27V).
UP3B-39	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (39V).
UP3B-75	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (75V).
UP3B-100	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (100V).
UP3B-235	UL Primary & Secondary listed with 350mA fuse for voice/fax/modem line (235V).

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