

CLLI INSIDE							
CLLI Model	NILI-cu (GBH)	CAREFREE-LITE P&S	SL MS 2+3 + Earth	Trinity TP-pack	MD-SC3C-CU-XV-10A	MD-SC3C 2A	MD-4Ccu (5V-1A)
RRP @ RM	103.00	73.00	73.00	123.00	53.00	43.00	43.00

CLLI INSIDE							
CLLI Model	MD-BNC-0E For CCTV	MD-BNC cu Data / +Filter	MDSC0039 5A or 10A	MD-4Ccu 12V-1A	MD-4Ccu +12V-1A	MD-4Ccu (CB-xV)	MD-4Ccu (Data 5V)
RRP @RM	43.00	43.00	53.00	43.00	43.00	53.00	43.00

LLSWA

Limited Lifetime Service Warranty Arrangements

- Go to a CAL-LAB showroom and ask for an immediate exchange of RECYCLED unit at RM25.00, or follow ADDRESS LABEL, and **send with appropriate payments** directly to CAL-LAB HQ following instructions found in LLSWA. **Unit received without correct payment will not be serviced, sorry!**
- There will be a minimum charge for check-up only (RM5). For Restoration. / Replacement Exchange of **lightning-damaged** CLLI, please follow terms in LLSWA below. **Tampered units** will not be serviced via LLSWA Terms.
 - < Please read Conditions & Exclusions in Warranty Card & in www.cal-lab.com >
- All payment-amounts quoted in this arrangement are only valid at CAL-LAB Restoration Centre at HQ: **30 Lrg Kurau 9, Tmn Sq Abong, 84000 Muar, Johor**, for RESTORATION only (**cost of sending has not been included**).
- Immediate exchange-replacement cost for APO & Dealer available on request.
- End-users pay: RM25 or RM15 or RM10 respectively for CLLI above RRP @ RM49 or RM29 or RM19

Facts & Mutual Understandings:

THANK YOU for using CLLI

(Know Your Benefits & Limitations)

- When your CLLI (Cal-Lab Lightning Isolator) is being put to correct usage – following the **Step-by-step** installation procedures and not subjected to overloading or abuse, we undertake to provide **two types** of warranties: **Manufacturing Defect** warranty and **Lightning-Damaged service** warranty according to conditions found inside **LLSWA**
- If you do not intend to respect** our **LLSWA** by paying the stated amounts for the stated services, we cannot force you. But please do not send any unit for restoration or replacement if you **refuse to pay or do not send with correct payment**. Manufacturing defects are extremely rare!
- A perfectly healthy** CLLI can be damaged on the first time the main switch is turned ON, if all connected equipment add-up to **an OVERLOAD** or **all equipment were left at ON position** (If you do not follow our Step-by-step installation-instructions!)
- A perfectly healthy CLLI can also be damaged by surges (even from far away) **anytime immediately after it has been installed!** (probably saving your equipment)

If the equipment supposedly protected by a CLLI is also damaged,

- If you have a valid & registered PG-Card (with a registration number given by CAL-LAB), proceed to claim following the conditions therein.
- If you have a valid Certificate of Insurance (CI), initiate claims following the instructions at the back of the CI.

Important Reminder: Each CLLI is NOT a MAGIC-box! It needs to be correctly connected in order to avoid dangers to equipment & user's life.

Why your equipment can still be damaged even though protected by a CLLI?

- If there is a **direct strike** onto the LNB so powerful that high surge is induced into the co-ax cable that also supplies the power to the LNB or booster, **minor damage may occur**.
- If your equipment contains **faulty component** or **your installation is wrong**, CLLI cannot help much. Only **equipment still in good condition can be saved**.
- Components WEAR & TEAR** in the equipment itself (especially at the POWER section) can cause a breakdown, **at the slightest surge (or no surge!)**.
- Abnormal power supply conditions**, such as BROWNOUTS and severe VOLTAGE FLUCTUATIONS cannot be easily detected by a normal CLLI (unless customized).

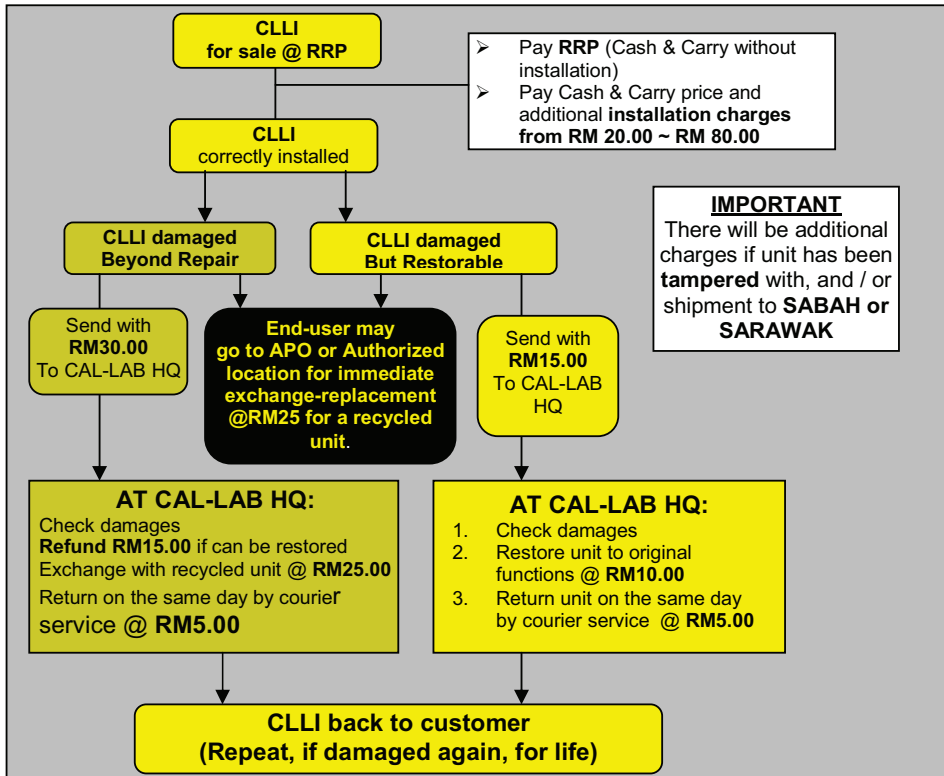
How to buy CAL-LAB products?

- Delivered to your doorstep** – Get details in HOW TO BUY or BUY GUIDE in our web site or in leaflets or call CAL-LAB to confirm payment amount before pay-in online, then fax or email pay-in slip and provide details for goods to be delivered. Notify us if goods not received **after 3 working days**.
- Go to our showroom in PJ or an APO or Biz-Partner near you and buy through them.

How to pay to CAL-LAB?

- Email callab@callab.com.my or call us or visit www.cal-lab.com for details
- By CASH-ON-LINE – Please check with us or follow instructions in our web site.
- By paying through our Business Partner (BP) who has a credit a/c with us. We will ship goods ordered c/o the BP's address.

< Specifications / Prices / Terms & Conditions subject to change. Refer to www.cal-lab.com >



Conditions & Exclusions

< More Details in www.cal-lab.com >

Conditions for CLLI to be effective

CLLI definitely will make equipment & users safer, but if your equipment is by itself poorly designed, manufactured or handled, CLLI cannot help much! The piece of equipment to be protected must first meet the following basic requirements for good quality, in itself, before CLLI can effectively protect!

1. **Your equipment must be able to withstand Voltage Tolerance** up to three times the normal operating voltage for one second without any damage to any part;
 2. **Spark-over Voltage or Isolation Withstand Voltage** between any two ISOLATED circuits, isolated by any means, must be at least 1KV
 3. **The equipment to be protected must be new and has never been exposed** to any surge damage before, as partial damage could have been caused before!
 4. **Each equipment must be absolutely correctly interconnected internally or among themselves** so that a single CLLI can provide the links to all external connections, such as Power supply, Telephone line, TV antenna, Satellite LNB cable, etc.
- **An appropriate model of CLLI** must be used for each setup
 - **No part of the equipment** or interconnecting cable may be allowed to be exposed to or nearby to any potential source of direct or induced surge, such as via the metal grill of a window or any conductive material, such as water.
 - **Once installed correctly**, no part of the set-up may be removed or any additional connection added unless strictly according to the recommended method. Leaving the switch of any piece of equipment at **either 'ON' or 'OFF'** makes **little difference** to the effectiveness of the protection, but removing the power cord of any piece of equipment and leaving it in contact with the floor or conductive material may endanger the whole set-up.

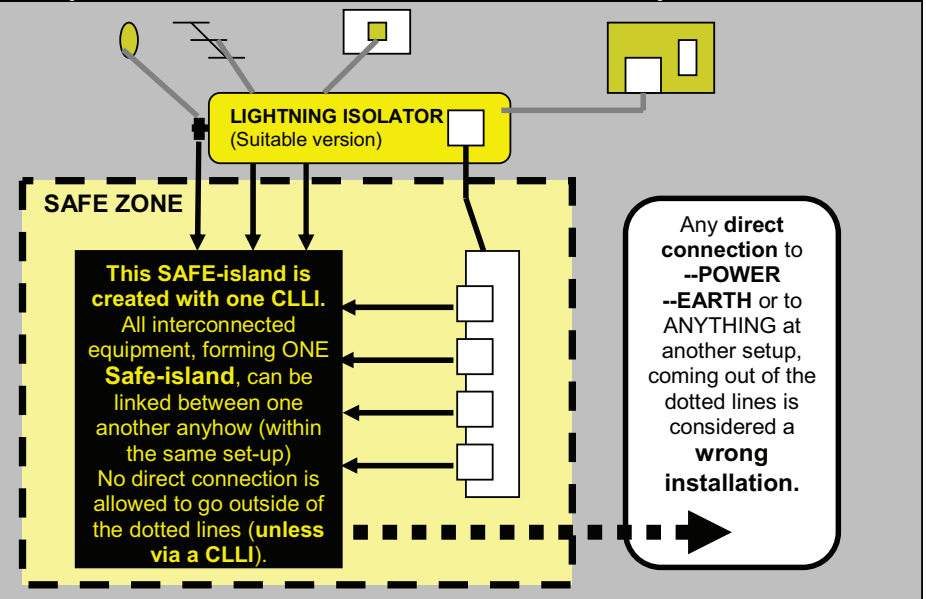
Exclusions where CLLI cannot protect the equipment

< Note – Any equipment damage costing RM100 or less for replacement parts, is NOT considered to be a "FAILURE TO PROTECT" by CLLI >

- Where there is any **component or manufacturing defect in the equipment itself** - CLLI cannot be effective.
- Where the **equipment does not meet the above parameters** for sound design or quality. Bad designs cannot be effectively protected.
- When there is any **abnormal power supply condition**, such as BROWN-OUTS or there are severe voltage fluctuations **caused by ARCING or POOR CONTACTS or EQUIPMENT SHORT-CIRCUIT** at a nearby facility sharing the same supply / phase (usually happens after lightning has struck a neighbour's facilities)
- When there is a **physical direct strike on the equipment or Grounding** causing high level of surge directly onto the equipment (not carried into the equipment via an external source).

- Where the CLLI has been damaged before **but has not been restored by CAL-LAB** where a set of proprietary equipment is available to perform simulation checks to ensure it would work the next time.
- Where there is a **poor connection between connectors**, such as the F-connectors for Satellite LNB, where the nuts need to be tightened.
- Where **DCJ-cu or data-cable-CLLI is not used** at equipment with AC / DC adapter power supply.
- Where the item, such as INTERNAL MODEM, DISC-DRIVE, LNB or any item internally interconnected **and not possible for a cable-CLLI to be added**.
- Where a damage or mal-function of any equipment is **NOT accompanied by any corresponding sign of damage at the connected CLLI**.
- Where a setup is **thought to be correctly protected with a CLLI**, but is interconnected by any type of cable, such as COMM cable, AV cable, UTP cable, RF cable, Telephone cable, etc. to another set-up, powered separately. (For such situations, an appropriate Isolator must be added at each cable-end)
- Where the **CLLI has been tampered with** and was not reassembled correctly.
- **Any conditions, though not mentioned above**, not in accordance with the recommended use, mount, or treatment of the CLLI or equipment, such as, water or moisture entering an equipment leaving little trace after having caused some damages, or insect in a equipment causing some components to fail.
- This list is, by no means exclusive.

Un-protected cables must not be too close to protected ones!



For more info, go to www.cal-lab.com / Email: callab@callab.com.my
PRICES, SPECS, TERMS & CONDITIONS subject to change without notice
Enquiries: 03-7726 8680 / 012-703 8225
Reseller assistance: 012-773 8225 / Technical assistance: 012-771 8225

CLLI INSIDE									
CLLI Model	SF9512-ARD+OR	MDSC-0039-CU1A or 2A	MLPX-BX	MLPX-BB	SKPX-ARD	SKPX-DSL	SKPX-ARD-cu	SKPX-EX	
RRP @ RM	83.00	63.00	29.00	49.00	19.00	19.00	23.00	19.00	

Important Notice

Where possible, this sticker printed in red is attached to every CLLI. Please take note of the contents and intentions of this sticker that forms part of every transaction.

IMPORTANT NOTICE:

This CAL-LAB Lightning Isolator (CLLI) is not a MAGIC-box! It has LIMITATIONS & it needs to be correctly installed so that it may save life & prevent major damages to your equipment. Minor damages may still result from a severe strike!

Please avoid VERBAL-promises!

Written Terms, Conditions & Exclusions, Specs & Installation-guide can be found in www.cal-lab.com & in printed materials, available by request.

For your safety, please follow various Safety-precautions, at all times!

When damaged by surges carried by cable, this non-tampered unit can be restored or exchange-replaced at RM25 or less (see benefits & limitations in Warranty-card & printed leaflets)

Useful Reminders:

- **No one should be misled into believing that your equipment are guaranteed in anyway WITHOUT having a valid written document.**
- The LNB of Satellite Dish and TV-booster cannot be protected or powered by the safe-zone of a set-up. Where it is not possible to separate one from another (such as the case of Satellite Decoder), minor damages may result from a severe strike directly on to the LNB. Such damages can be reduced if the LNB were to be in a metal casing or by positioning the shielded co-ax cable above & around the LNB.

Please do not be misled by verbal promises!

- We believe CLLI is so effective that it does not need to sell with INSURANCE.
- When a severe or direct strike on items such as LNB or TV-booster occurs, there may be minor-damages to protected equipment, even with CLLI, due to conditions UNABLE-to-be-protected! (See **CONDITIONS & EXCLUSIONS**).
- Keeping user safe is more important, when a SAFE-island is correctly created with CLLI for each setup!
- Very important: **A SAFE-island is no-more safe, if any protected-cable from the SAFE-island is too near to UN-protected ones!**

KL-PJ sales & service centre at: **S2 Second floor, CENTREPOINT, BU, PJ**

Tech-assist: 012-771 8225 / Reseller-assist: 012-773 8225

Enquiries: Call-FAX - 03-7726 8680 / 012-703 8225 Email: callabkl@gmail.com

CLLI INSIDE									
CLLI Model	NILI 9920-F	SL-AR-3A or 1.5A	SL-AR-5A+E	DCJ-cu-DATA	DCJ-cu-5V-1A or 2A	DCJ-cu-12V-1A or 2A	DCJ-cu-XV5A	DCJ-cu-CB-36V	
RRP @ RM	79.00	79.00	89.00	33.00	33.00	33.00	33.00	33.00	

STEP-BY-STEP INSTALLATION FOR COMPETENT BEGINNERS

Lightning can arrive any time! Wear rubber shoes & turn OFF power while touching any cable or connector (even though insulated)!

A. Note down all existing connections with a sketch

1. Note each power supply connection.
2. Note each connection to the telephone line (if any).
3. Note each connection to the TV antenna (if any).
4. Note each connection to the Satellite dish (if any).

B. Turn off the power supply

1. Each of the power supply connections you have observed above should be switched 'off' and disconnected from the wall outlet.
2. If each of the power supply connection is connected to one multiple extension-block, then just disconnect the plug top from the 'wall' or initial supply outlet.

C. Read the recommended installation for lightning isolator

1. Be sure you understand the instructions.
2. Be sure you can identify each item mentioned.
3. Be sure you can identify each connection point mentioned.

D. Step-by-step installation, if applicable (remember there is danger any time).

1. With the power supply remaining at 'OFF' position, **and all interconnecting equipment at 'OFF' position**, connect the multiple extension-block input plug to the output socket of the CLLI.
2. **Insert** the plug top of the CLLI to the wall outlet, **but DO NOT turn ON power yet.** (Important – This step must be carried out for added personal safety)
3. **Squeeze** and remove the telephone line connection at the equipment; then insert the same plug (RJ-11) into the 'IN' socket for tel-line at the CLLI.
4. With the **RJ-11** plug-to-plug cable provided, connect one end to the 'OUT' socket at the CLLI and the other end to the equipment where you have earlier removed the plug from.
5. **Slightly rotate** and remove the TV antenna cable from the equipment and insert it onto any one of the RF-sockets at the CLLI. Then reconnect the cable from the other RF-socket to the equipment 'ANT' input.
6. **Unscrew** the F-connector cable (leading to the Satellite dish) from the equipment and fasten it to any one end of the F-connector at the CLLI. With the F-connector cable or Twist-On-Plug provided, reconnect between CLLI and the equipment.
7. **Check** to ensure POWER to each interconnected item is taken via the same CLLI and every 'outside connection' (such as to telephone line, TV antenna and/or Satellite dish) is also via the same CLLI. (LAN cable must be isolated & grounded)
8. When everything is correct, switch 'ON' the CLLI power supply at the wall outlet and **switch 'ON' the equipment one-by-one.** (Otherwise, the CLLI may blow!)

*** Get expert help if you encounter any problem ***

Specifications & Prices subject to change.

Latest Technical Assistance or details in www.cal-lab.com

Call or fax CAL-LAB at 06 9517680 for advice or Email: callab@callab.com.my

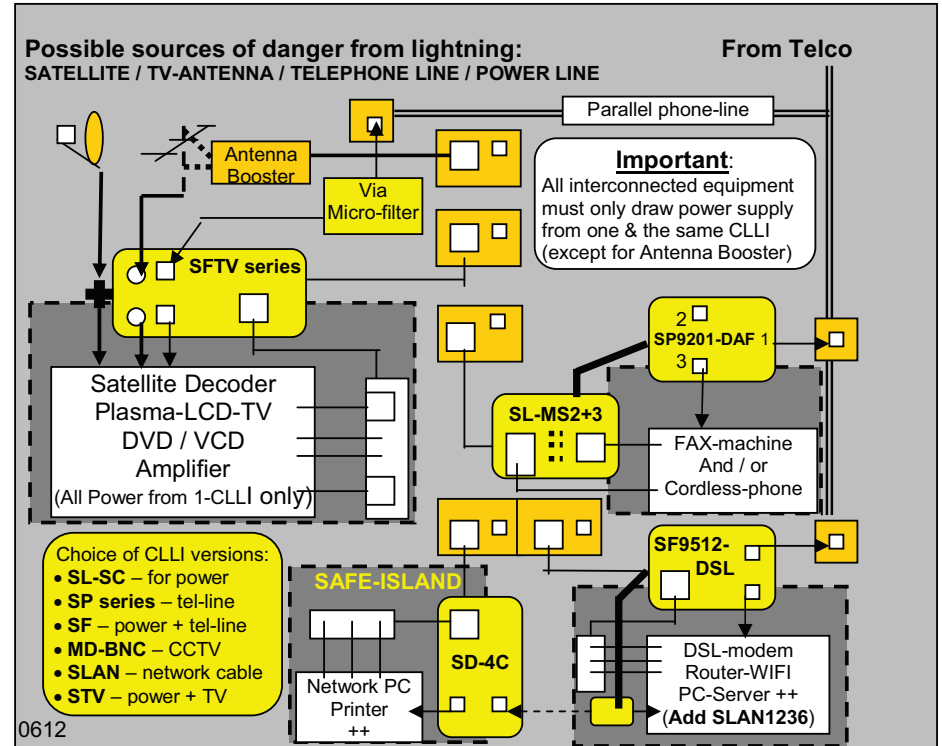
CLLI INSIDE							
CLLI Model	SP9201-DSL	SP9201-AR-D	MD-SC3C-CU5A or 1A	POE-1236-24V Ethernet +Power	MD-8Ccu Data x 8 +E	SP-KX-4 HYBRID-EX	SP-KX-2 (EXD)
RRP @RM	33.00	33.00	53.00	89.00	93.00	43.00	33.00

CLLI INSIDE							
CLLI Model	SFTV9822-FC	STV9511-MS1+3	SL MS 4 + Earth	SD9623 Data-2pr		SC9517 Fuse (5A)	SC0039 5A or 10A
RRP @RM	108.00	89.00	83.00	89.00		49.00	49.00

Cal-Lab Lightning Isolators – Product Brief

CLLI model	Description & features	For what?
SC0039 NILI9920F SL-AR(3A)*	13A plug top, 10cm cable and 1 socket outlet. Fused version is optional. <*SL-AR(3A) – max. 3Amp. for fridge only>	For power supply of air-cond / fridge / washing machine / microwave oven
MDSC0039 SL-AR(5A) MD-PLC-1*	13A plug, 1.5M cable + 1 socket outlet & EARTH terminals. *PLC-1 = + RF-noise Filter	Used with multiple outlets at power supply of multi-input equipment set-up.
SL-MS2+3 SL-MS4 (customized)	13A plug, 1.5M cable, 2x13A & 3x2-pin outlets & EARTH points. Fused version is optional.	Used for power supplies of multiple equipment set up.
SL-MS4+6 Trinity-TP	13A plug, 1.5M cable + 10 outlets or 7 outlets & EMI Filter, with EARTH points. Fused version is optional.	Used for power supplies of multiple equipment set up.
SC9517 MD-SC3C	Terminal screws & fuse, for DIY interface into Power cord. MD-SC3C for professional use.	Add-on to existing equipment power cord or extension cord.
DCJ-cu DCJ-cu+E	AC/DC 12 or 24V feed-through LI / with or without DC-jack & socket	For Alarm sensor / DC power.
MD-4Ccu (many versions) MD-8Ccu	Screw-on in-out for MD-4Ccu (Data-5V) / MD-4Ccu (+12V) / (12V) / (CB-12V) / ++ MD-8Ccu with RJ-45 in-out	Used at Video door-phone / key-pad / C-bus. RS-232 Adapter
SP9201D / AR SP9201-DSL	One input socket & one output plug in RJ-11 format & Earth wire.	AR-D version for Analog devices. DSL version for DSL modem only
SP9201-DAF	1 plug & 1 socket for DSL in-out & one Analog output socket in RJ-11 + Earth wire	CLLI c/w DSL line Filter-Splitter replacing 'Micro filter'
SD-9623cu (RM93)	Power + RJ-45 in-out using pins 1, 2 & 7, 8 + Earth wire	For 2-pairs Data / leased lines (pins 1278 or customized).
SLAN-1236 POEcu	One input socket & one output plug in RJ-45 format & Earth wire	For networking equipment using UTP cable at HUB or Router.
MD-BNC MD-FC	One input socket & one output plug & Earth wire	For co-ax cable with BNC or F-connector
MDTV9922 MDTV-cu	2 input RF sockets & 1 output plug & Earth wire. MDTV-cu Decoder or Video extender	For TV antenna mixer . May be used as a splitter .
SFTV9822-FC SFTV9622-FC	Combination models c/w 1.5M cable & one 13A power outlet + FC-connectors + tel-line & antenna isolators. (sold without FC-cable)	For Satellite TV receiver with Modem, such as astro. Used with multiple trailing sockets.
SF9512-D / AR SF9512-DSL SF9812	Combination CLLI c/w 1.5M cable, 13A Plug & socket + RJ11 in-out sockets. SF9812 c/w replaceable SKPX-DSL/AR or D	AR-D version for Fax/MODEM, PC, Cordless phone. SF9512-DSL for broadband/ISDN only
SD-4C or 8C SD-4C (+DSL)	Power & 2 X RJ45 sockets - (+DSL or ARD)-Combination version c/w tel-line	For DTE using UTP – 8 wires or 4 wires at RJ-45
STV9511	Combination CLLI c/w 1.5M cable, 13A Plug & socket + PAL-RF sockets in-out.	For equipment set-up including TV without Satellite dish
MLPX series	Made up of BX / BB / SKPX-modules for TRUNK-line or EXTENSIONS	For KEY-PHONE / PABX SKPX-modules also for SF9812
TRINITY series	Combination MODELS & Multiple Sockets power outlets. Example – A-V Pack MS3+3 or I-T Pack - MS4+3 or SFTV9622FC-MS2+3 or SL-MS2+3 Twin-Pack (10 outlets)	For equipment set-up needing multiple power socket outlets. Thus eliminating the need for trailing socket outlets.
PLC-CLLI For Power-line network	Power-line Network or PLC-adaptors can now share a power outlet with connected equipment, improve connection-rate & be safe from lightning.	NILI-PLC / NILI-PLC-TWIN / NILI-PLC-TRINITY for reducing RF-noise & improving connection-rate

Typical combinations in Home or Office



Specs	Power section	Tel-line version-D	TV antenna	Satellite Cable
Connection	13A / 3-pin P&S	RJ-11 sockets	PAL-sockets	F-type
Current sensor?	NA	Yes	NA	NA
Clamping Voltage	275Vrms	~150V	NA	NA
Isolation Means	Weak-links	Resistive fuse	C-coupling	Reverse-means
Potential Limit	~430V to Earth	~470V to Earth	0V to Earth	0-V to Earth

Note:

- CLLI are sold with Lifetime Service Warranty – see LLSWA
- Correct installation is vital for equipment & USER safeties!
- Terms & Conditions in **WARRANTY CARD & Thank-you note.**
- **Technical Assistance / Important Info** in: www.cal-lab.com

SPECS, Prices & CONDITIONS subject to change. Refer to: www.cal-lab.com
For help, call / FAX: 06-9517680 / 03-77268680 Email: callab@callab.com.my
Service centre: HQ – 30 Lrg. Kurau 9, Tmn Sg Abong, 84000 Muar, Johor, Malaysia.
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