|(((((I|(| **IED** · **LANcom** |
SCHOOL COMMUNICATION SYSTEMS

LC11CS / LC12DCS
Call Switches
Installation Instructions

INTRODUCTION

LC11CS and LC12DCS contractor configurable call switches are designed for page and intercom flexibility in the IED LANcom SCS with either the LC331IC or the LC372SR communications modules. Multi-function intercom call switches provide call requests and/or emergency functions to dispatch personnel at facility's head-end or office location. Single (LC11CS) or dual (LC12DCS) pushbutton switches are available with the LANcom communications module. Each call switch is configurable to signal on one of four unique input lines for pre-defined functions. The system will sound a signal in the office and give audible confirmation in the classroom when an intercom request button is pressed. System connection is through CAT5 or better structured cabling terminated with RJ-45 connectors. The call switches each fit in a 1 gang deep box.
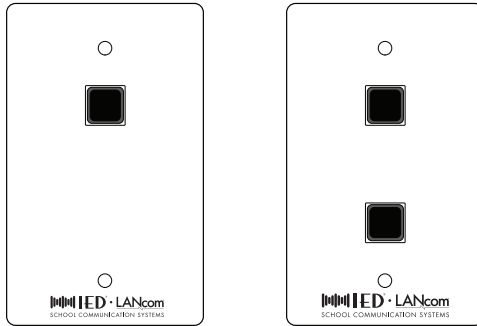

Figure 1 - LC11CS and LC12DCS Call Switches

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

SAFETY SYMBOLS

Labeling on products and the *Installation Instructions & User Manual* may use safety related graphical symbols as shown below to note safety requirements.

⚠ **Lightning Bolt:** The lightning flash with arrowhead symbol, within an equilateral triangle, WARNING symbol, is intended to alert the user to the presence of un-insulated ***dangerous voltage*** within the product's enclosure that may be sufficient in magnitude to constitute a risk of electric shock to persons or domestic animals.

⚠ **Exclamation Point:** The exclamation point within an equilateral triangle, CAUTION symbol, is in-tended to alert the user to the presence of important operating and maintenance (servicing) instructions, or a hazard that can damage equipment.

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous condition and have taken appropriate steps.
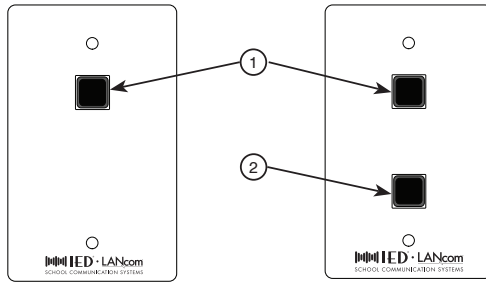
CONNECTIONS

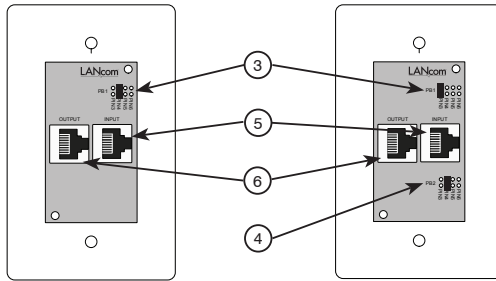**Figure 2 -** LC11CS – LC12DCS Front View

Figure 3 - LC11CS – LC12DCS Rear View

1. **Button 1 (PB1)**
   This button is used to initiate intercom call requests or other functions as determined by the configuration of the PB1 jumper located on the back of the unit. Both the LC11CS and LC12DCS have this button.

2. **Button 2 (PB2)**
   This button is used to initiate intercom call requests or other functions as determined by the configuration of the PB2 jumper located on the back of the unit. This button is only present on the LC12DCS.

3. **Button 1 Control Pin Selection**
   This jumper assigns button 1 to one of the four available control pins. See Table 2 for a description of the control pins.

4. **Button 2 Control Pin Selection**
   This jumper assigns button 2 to one of the four available control pins. See Table 2 for a description of the control pins.

5. **Input RJ45 Connector**
   This connector is used to daisy-chain the unit with another LC11CS or LC12DCS call switch. It also accepts a connection to an LC372M Remote Microphone Module when used in conjunction with a call switch and LC372SR Sound Reinforcement Module. See Table 1 for the connector wiring details.

6. **Output RJ45 Connector**
   This connector is used to send button presses to an LC372SR or LC331IC to trigger actions. It also passes audio from the LC372M Remote Microphone Module to the LC372SR when used in conjunction with a call switch. See Table 1 for the connector wiring details.
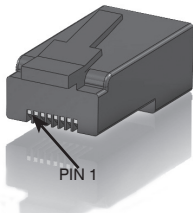
RJ45 Connector Wiring

Each unit connects to either an LC372SR Sound Reinforcement Module or LC331IC Integrated Communications Module using CAT5 or better structured cable. Each connector should be wired as shown in Table 1. While pins 1, 2, and 7 are not used by either the LC11CS or LC12DCS, they are required to pass phantom power and microphone signal from the LC372M Remote Microphone Module.

Pin	Function	Cat5 Color Code
1	Not used	Orange /W
2	Not used	Orange
3	Switch out *	Green /W
4	Switch out *	Blue
5	Switch out *	Blue/W
6	Switch out *	Green
7	Not used	Brown /W
8	Ground	Brown
Signal pin is determined by jumper setting.		

Table 1 - RJ45 Connector Wiring

PIN 1

Control Pin Functions

Each button must be assigned to one of the four available control lines. Multiple buttons can be assigned to the same control line when devices are daisy-chained. The function of each control line is listed in Table 2. The functions may be globally modified in the LANcom SCS software. Control line 6 is configured in software to perform actions such as closing a relay that can be used to raise and lower a projection screen or blinds.

Pin	Function
3	Normal intercom call request
4	Emergency intercom call request
5	Lockdown acknowledgement
6	Software-configurable action

Table 2 - Control Pin Functions

Specifications

Electrical
Pushbutton Switches .... Dry contact, normally open, momentary
Address ....Jumpers to select one of four signal lines
Mechanical
Dimensions ....2.75" W x 4.5" H x 1.375" D (69.9mm W x 114.3mm H x 33.3mm D)
Minimum Mounting Depth .... 2" (50.8mm)
Mounting Box...1-Gang Deep Box
Recommended Electrical Box .... Steel City 52151-1/2-3/4 with 52C14 5/8 1-Gang Box Device Cover
Connections
Control Out RJ45 (x2)
Paralleled to allow daisy-chaining of multiple switches
Ordering Options
LC11CS...1 Switch
LC12DCS ....2 Switches

CONNECTION DIAGRAM

LC372SR (shown) or LC331IC

IR RECEIVER INPUTS

CALL SWITCHES
REMOTE MIC   AUX   HANDSET
                    INPUT   INTERFACE

SPKR   LINE   MUTE POWER
OUT   OUT

AUX AUDIO INPUT   FORM C RELAY OUTPUTS   ETHERNET/
                                                       IED MIDSPAN

Model# LANcom LC372SR

Category 5
Cable

LANcom

Button 1 (PB1) jumper is
set to Pin 4 to function as
an emergency intercom
call request button

OUTPUT   INPUT

PB2

Button 2 (PB2) jumper is
set to Pin 3 to function
as a normal intercom call
request button

Category 5
Cable

LC12DCS

LANcom

PB1

OUTPUT   INPUT

LC12DCS

The LC372M is daisy-chained
through the LC12DCS

LANcom

LC372M

The LC11CS is daisy-chained
through the LC12DCS with
the jumper set to Pin 6 and
used to raise/lower the
projection screen

LANcom

PB1

OUTPUT   INPUT

LC11CS