



Select Entry Systems TEC1ACL Series Release of the Select Cellular Installation Guide

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Installation – TEC1ACL Series Access Controllers

Safety Warnings

English Language

For your safety please observe the following recommendations when installing TEC1ACL series product enclosures:

- Never install equipment during a lightning storm or other hazardous event
- Do not bring mains voltage cabling into the product enclosure or attempt to connect mains voltage to any wires leading from the product, or the enclosure housing itself. Only the isolating transformer supplied with the product should be connected to the electrical mains supply by following the installation instructions below. In wet locations, only install wiring and cabling rated for wet locations
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the telephone network interface
- Follow industry-recommended installation practices when installing cables and grounding wires
- Do not attempt to use the provided isolating transformer to supply other equipment - it is intended solely for the purpose of powering access controllers in the TEC1ACL series

Cellular Services

Installation of TEC1ACL requires cellular service from your chosen cellular service provider – either AT&T or T-Mobile.

Out of the Box Active Cellular Capability - Ready to Install

The TEC1ACL is shipped with an ACTIVE cellular SIM card and is ready to use out of the box.

Checking Cellular Reception at Installation Site

Before fully installing the product, check the cellular signal strength at the installation location by simply applying power to the Select Cellular Module Interface (Router) “SCMI” using the 12VDC/2A transformer supplied by SES. Keep in mind your carrier coverage for the site area (AT & T or T-Mobile factory options). You can use the SCMI internal LED indicators to check for cellular service.

Once the SCMI has been powered up for one minute, the “Mobile” LED (green oval) will illuminate if the service is connected and idle.

In the red box, 1, 2 and 3 vertical dashes below the LEDs correspond to low*, medium, and high signal strengths. One bar indicated potentially unreliable service, 2 or 3 bars are recommended.

*An optional External Antenna is available to improve reception.

Select Cellular Module Interface (Router) “SCMI” LED Indications

LED	Color	Condition	Meaning
POWER	Red	Off	No DC power
		On	DC power is on
STATUS	Green	Steady Off	No cellular connection/error
		Steady on	Cellular phone in use
		Long blink on/Long blink off	Data transfer in progress
		Short blink on/long blink off	No SIM card or network searching
		Long blink on/short blink off	In service
MOBILE	Green	Steady on	The cellular phone is idle
		Very short blink on / Very short blink off	The cellular phone is in use
		Short blink on/short blink off	Cellular circuits busy
		Long blink on/long blink off	The dialed number is busy
CPE	Amber	Off	Unit phone line is “on-hook”
		On	Unit phone line is “off-hook”
(Signal Strength)			
No bars		All off	Poor or no useable signal
1-bar LED	Green	On	Low signal but useable*
2-bar LED	Green	On	Good signal
3-bar LED	Green	On	Best signal
WAN	Green	Off/On	SES use only

Note on Fallback Services

The **SCMI** searches for the best available cellular service but will fall back to 3G services if 4G LTE and VoLTE services are not available. The **availability of these services is controlled by cellular carriers, not SES.**

Mechanical Mounting

Installation Heights

Figure 1 shows the recommended installation heights for the TEC1ACL series access controllers.

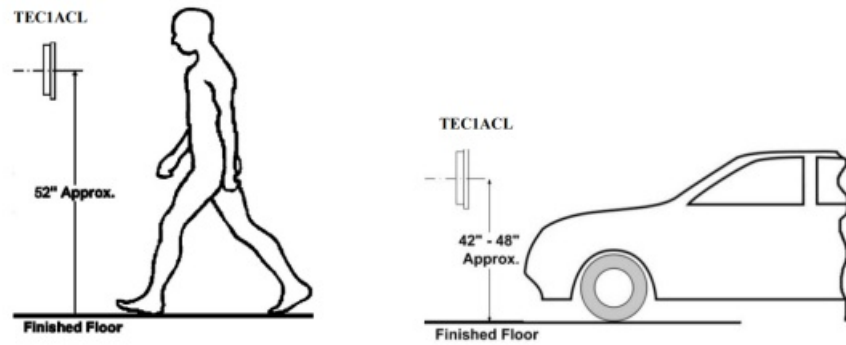


Figure 1: Installation Height for Pedestrian and Drive-Up Applications

Surface Mount

Mount the backbox using the holes provided.

Flush Mount

Cut a hole the size of the backbox 8 1/2" (w) x 11 3/4" (h) in the wall, then mount the TEC1ACL in the hole.

Optional Weather Hood Recommendation

It is recommended that an optional weather hood be used when mounting a TEC1ACL in a stand-alone application to protect it from direct exposure to rain and snow. Please call Factory for availability.

Sealing

All openings and penetrations of the TEC1ACL enclosure should be sealed with suitable RTV silicone sealant.

Electrical

Grounding

The TEC1ACL MUST BE AT EARTH GROUND POTENTIAL.

Connect a #16 stranded or larger wire from the ground lug in the base of the backbox of the TEC1ACL to a cold water pipe or other suitable ground. This wire should be less than 50 feet in length. See Figure 2 for the location of the backbox ground lug.

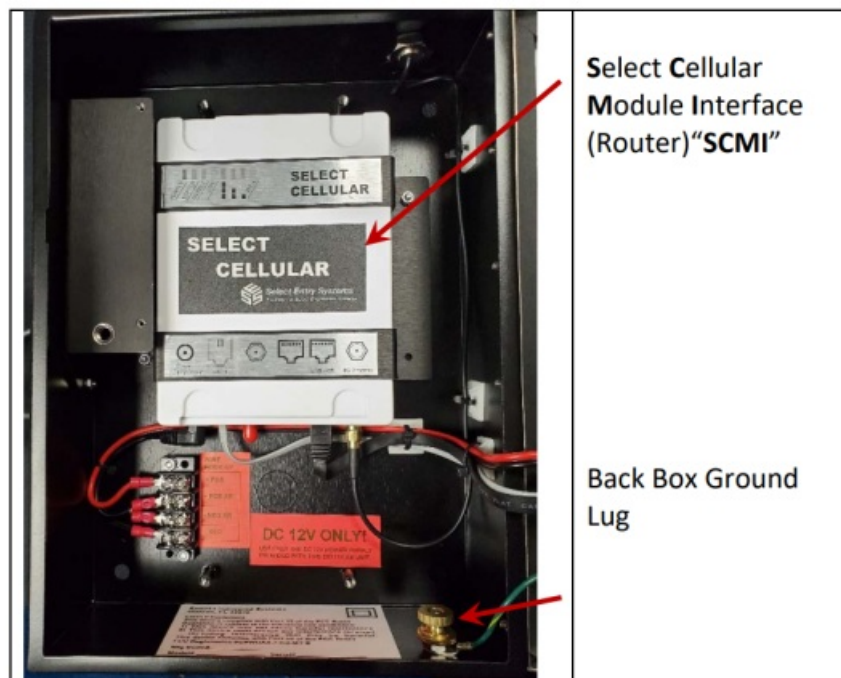


Figure 2: TEC1ACL Location of Back Box Ground Lug

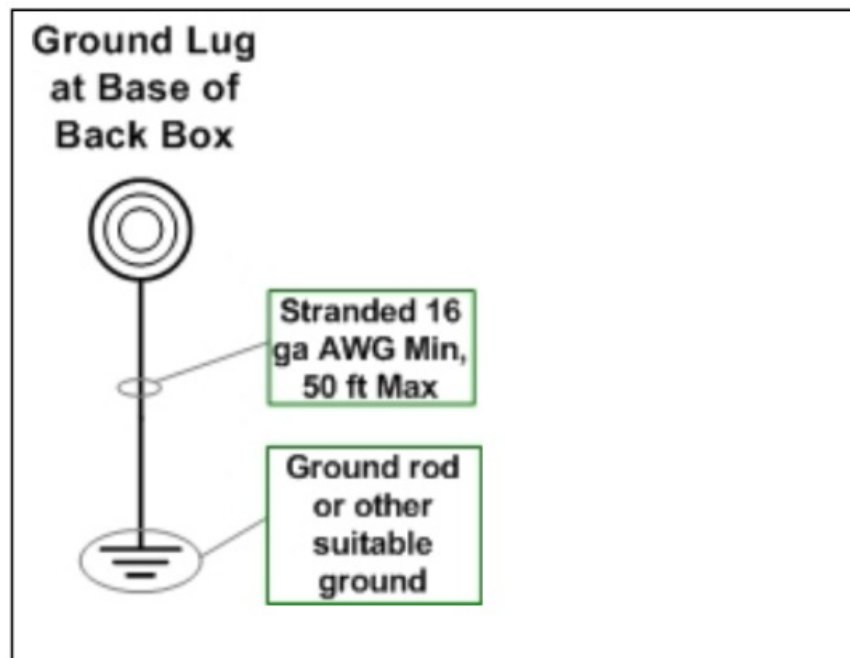


Figure 3: TEC1ACL Ground Lug Connection

Overall Main Board Layout

See Figure 4 below for an image of the mainboard.

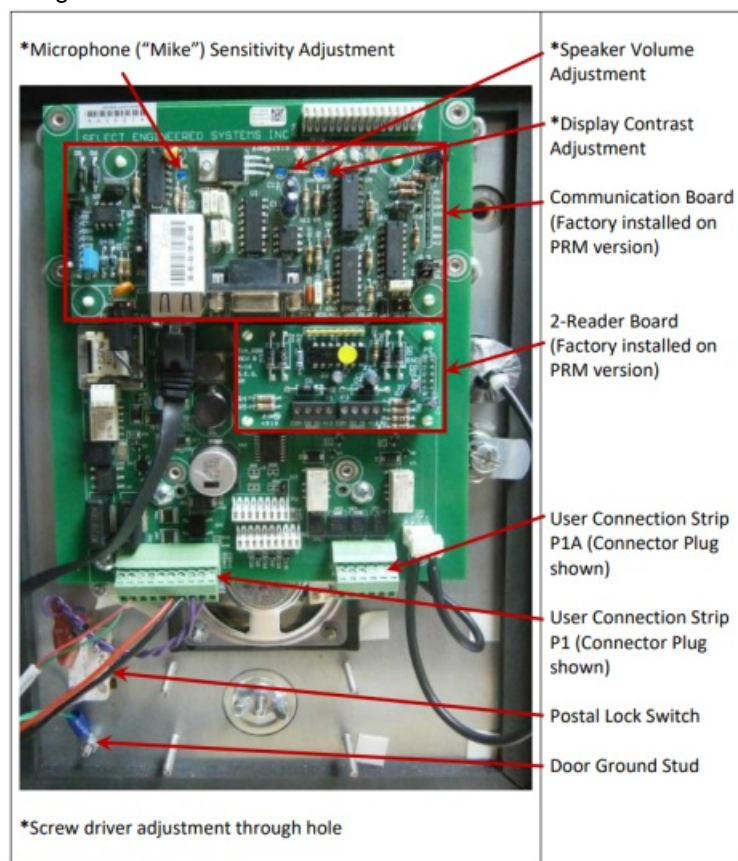


Figure 4: Inside Door of TEC1ACL

User Connections

Figure 5 shows the Terminal Strip connections P1 and P1A for user connections, along with the Door Ground Stud. No other connections are required.

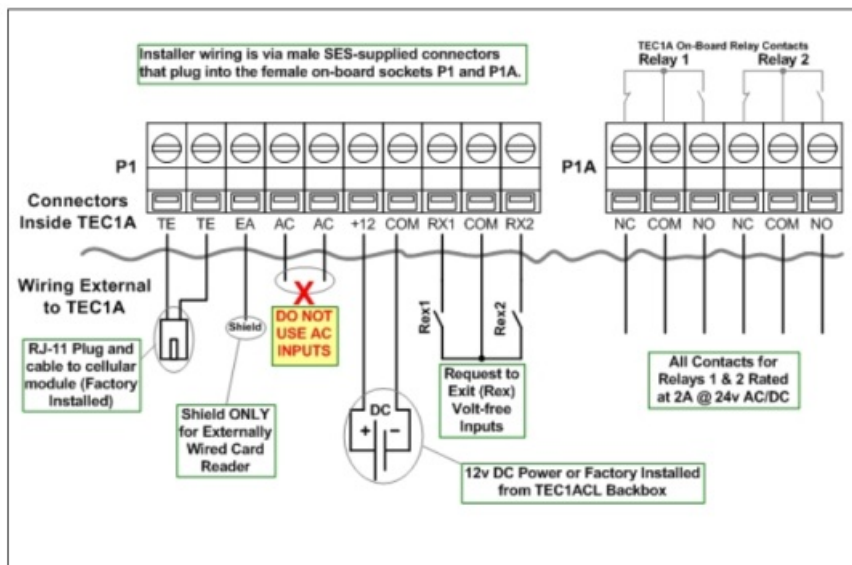


Figure 5: TEC1ACL User Connections

Telephone Connection

The phone cable is already factory-connected to the SCMI at TE-TE in the figure above.

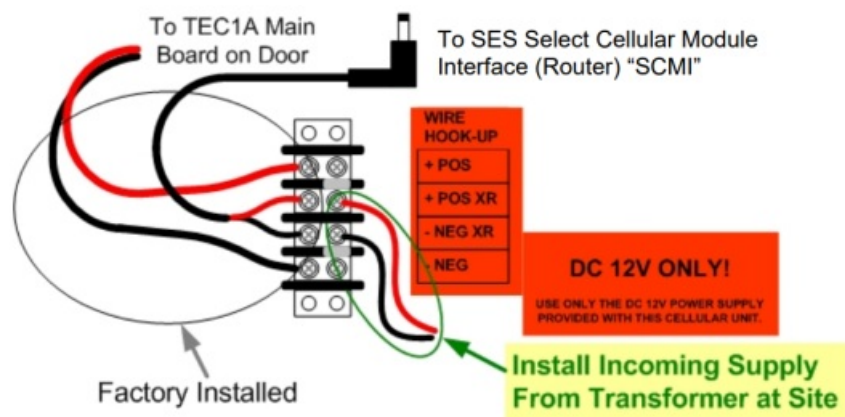
CAUTION Do Not Connect Other Non-SES Equipment

NO OTHER TELEPHONE DEVICES or NON-SES EQUIPMENT should be attached to this phone line.

The exception is when connecting additional SES access controllers. In this case, an MUI plug-in board (included in the PRM version) must be used, allowing up to two SES Access Controllers to be connected on the same line.

TEC1ACL Power

Power must be applied using the SES-supplied 12VDC/2A transformer. The SES transformer wires should be connected to the terminals "+ POS XR" and "- NEG XR" located in the backbox as shown below.



WARNING Do not use AC power on the TEC1ACL unit. There should be NO connections on the "AC" and "AC" terminals of the P1 connector. **Damage to the TEC1ACL may occur and void the warranty.**

For 12V DC source, idle current consumption is as follows:

12V DC IDLE Current Table TEC1ACL	
LCD Display	Idle Current (mA)
2-Line	490
4-Line	510

Rex (Request to Exit) Inputs

The request to exit inputs (RX1 and RX2) are VOLT-FREE (dry) contacts located on connector P1 as shown in Figure 5. No external voltage is either required or desired.

To use either Rex input, connect the COM (between RX1 and RX2 of connector P1) to one side of the external relay's contact being used to request exit, then connect either RX1 or RX2 to the other side of the relay contact as desired. Figure 5 refers.

WARNING – Rex Inputs

Connecting an external voltage source to either Rex input will cause damage and void the warranty.

Relays

Relays are connected to terminals on connector P1A. Both normally open (NO) and normally closed (NC) contacts are available for both relays without the need for board configuration.

WARNING – Relay Contacts Maximum Ratings are 2A @ 24 Volts AC or DC Failure to comply with the maximum ratings shown for relays will cause damage and void the warranty.

Reader Card

The TEC1ACL Premium version includes a 2-Reader Board which works with 26 bit Wiegand format.

The 2-Reader board installation instructions are included in this booklet or with the individual card packages if ordered separately. Additional information can be found on the SES website www.selectses.com.

Communication Board

The factory-installed Communication Board in the TEC1ACL series includes MUI, Ethernet, and Serial connections, which will allow programming of the unit over the cellular network using SES Selcom software.

SES will provide a SIM Card IP address and a Port number on a label for use in Selcom software setup using the TCP/IP communications method. For more information, visit the SES website www.selectses.com.

Programming a Directory Record with a PIN into a TEC1ACL

The following steps show how to set a directory record (Code, Name, Phone #, and PIN for entrance 1 with 24/7 access) using the keypad. It assumes the TEC1ACL is powered on and that the Welcome Page e.g. "Press # to View Directory" is displayed before starting. Note that Steps 4 and 5 are included to check if PINs are enabled. Once PINs are enabled, steps 4 and 5 can be skipped for future entries. For all other settings please refer to "TEC1ACL Series Menus".

Steps to Program a Directory Record with a PIN into a TEC1ACL using the Keypad			
#	Step Description	Keypad Action	Resulting Display
1	Enter Programming Mode	Press * and 0 at the same time	PASSWORD
2	Enter Password	Press 6 digit password (default is "777777") then *	MAIN MENU 1- 8
3	Select Codes & Names	Press 1	CODES & NAMES SELECT 1 – 9
4	Skip this step if you know PINs are enabled	Press 8	ENABLE PINS = 0 or ENABLE PINS = 1
5	Complete check of Enable PINs setting	If ENABLE PINS = 0, press 1 then * If ENABLE PINS = 1, press *	CODES & NAMES SELECT 1 – 9
6	Select Add New	Press 1	CODE =
7	Enter a code e.g. 100	Press "100" then *	NAME =
8	Enter a name e.g. JOHN.	Note: # moves cursor to next character Press J# Ott H# N# then *	PHONE if=
9	Enter phone number	e.g. 3055551212 then *	PIN =
10	Enter 4-digit PIN	e.g. 1234 then *	ENTRANCE = 0
11	Set Entrance 1	Press 1 then *	TG GROUP = 0
12	Set Group 0 (24/7 access)	Press 0 then *	CODE =
13	Enter more records OR	Repeat as needed from the end of step 6 with new data. Note that no two codes and no two pins can be identical.	
14	Exit Programming Mode	Press *0 together	Welcome Page

“BETTER TECHNOLOGY MAKES BETTER SYSTEMS”




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 <p>TEC1ACL SERIES</p> <p>SELECT ENTRY SYSTEMS TEC1ACL SERIES RELEASE OF THE SELECT CELLULAR INSTALLATION GUIDE</p> <p>SELECT ENTRY SYSTEMS TEC1ACL SERIES RELEASE OF THE SELECT CELLULAR INSTALLATION GUIDE</p>	<p>Select Entry Systems TEC1ACL Series Release of the Select Cellular [pdf] Installation Guide</p> <p>TEC1ACL Series, Release of the Select Cellular</p>
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References

-  [Select Engineered Systems Access Control - Telephone Entry Systems - Telephone Access Control](#)