

ACT 445X Cable Location Protection

A Switch and Protector System



- ▶ The ACT 445X Switch and Cable Locating Protection System is made up of a remote switching device controlled by a Cable Location Transmitter System. In addition the ACT 445X system is built with a high-energy surge protector. The surge protector provides a low impedance path to ground for high-energy transients (Lightning, temporary over voltage TOV, etc.); and a high impedance path for low energy signals (cable locating tones).

A multiple heavy-duty relay is installed in this unit allowing the cable sheath to remain grounded while de-energized.

When a 48 volt D.C. signal is applied from the transmitter, it lifts the earth ground off the cable and connects the transmitter tone to the cable sheath and also connects the protector from the sheath to ground.

▶ FEATURES AND BENEFITS

- Multiple Switching Directions (2, 4 and 16 directions)
- Green Status indicating Lights
- NO/NC Form C Dry Contacts for remote monitoring
- MOV/Gas Tube Hybrid Technology
- 5-Year Standard Warranty

▶ PHYSICAL SPECIFICATIONS

The ACT 445X is available for two, four or sixteen way switch cable access in one box.

For two and four way cable access (labeled 1,2,3,&4) a 12"x10"x6" box is used.

For sixteen-cable access a 16"x14"x6" wall or rack mountable box is used. This unit is sold with control cable harness ACT 445-S18-040.

Both boxes provide an internal screw terminal block for use with trace wires. Both units are sold with the control cable harness (ACT 445-S12-040) for connection to the tone transmitter.

▶ ELECTRICAL SPECIFICATIONS

Voltage Applications:	150V, 350V
Clamping Voltage (@ 1mA DC): (+10% voltage variance)	212V, 510V
Peak Current (8x20μS):	42,000 Amps
Energy Dissipation (10x1000μS):	1600 joules
Response Time:	1.5 Nanoseconds
Capacitance @ 5KHz:	4004pf
Relay Coil Voltage:	48 Volts DC
Relay Coil Rating:	5 Amp continuous
Signal Connector:	DB24 (other cable connector options available on request)

▶ STANDARDS MET

- Safety – Meets UL497
- ANSI/IEEE C62.41, C62.45

▶ 3RD PARTY TESTED

▶ RECOMMENDED LOCATION

- Central Office
- Regen Huts

ACT 445X Cable Location Protection

A Switch and Protector System

TECHNICAL INFORMATION

Model	RMS	System	Protect	DC MCOV
ACT 4454- 150	150	2 way Switch Box with 40' cable	East - G	212
			West-G	212
ACT 4454- 350	350	2 way Switch Box with 40' cable	East - G	510
			West-G	510
ACT 4456- 150	150	4 way Switch Box with 40' cable	East - G / West-G	212
			North - G / South - G	212
ACT 4456- 350	350	4 way Switch Box with 40' cable	East - G / West-G	510
			North - G / South - G	510
ACT 4457- 150	150	16 way Switch Box with 40' cable	East - G / West-G	212
			North - G / South - G	212
ACT 4457- 350	350	16 way Switch Box with 40' cable	East - G / West-G	510
			North - G / South - G	510

Part Number Example: ACT 4454-150

*Custom voltage and cable configurations are available

ACT 445 Electronic Switch Box

(only used in ACT 4454 / ACT 4456 / ACT 4457 systems – Box not sold by itself)

ACT 445-XXX-ZZZ XXX – Protection Voltage
 150 DC clamp voltage
 350 DC clamp voltage
 ZZZ – Box Type

500 2 Direction switch box E/W 24 pin bulkhead connectors with three terminal posts for ground and cable sheath connection. 600 4 Direction switch box E/W 24 pin pc board connector and five terminal posts for ground and 4 direction cable sheath connections

700 16 Direction switch box E/W 36 pin pc board connector and 17 terminal posts for ground and 16 direction cable sheath connections

Part Number Example: ACT 445-150-500

*CABLE HARNESS

ACT 445-S12-040 DB24 connectorized cable, 40 feet in length, connects ACT54 & ACT56 units to Logline Maintenance Systems tone transmitters.

ACT 445-S18-040 DB36 connectorized cable, 40 feet in length, connects ACT57 units to Longline Maintenance Systems tone transmitters.

All switch box systems are sold as system numbers when combined with cable harness.

ACT 4454-ZZZ SYSTEM 2 direction, consists of: ACT 445-ZZZ-500 & (1) ACT 445-S12-040 cable. Where ZZZ = 150v or 350v protection level

Part Number Example: ACT 4454-150

ACT 4456-ZZZ SYSTEM 4 direction, consists of: ACT 445-ZZZ-600, (1) ACT 4454-S12-040 cable. Where ZZZ = 150v or 350v protection level

Part Number Example: ACT 4456-150

