1601 BREAK-AWAY ALUMINUM ARM INSTALLATION KIT

This kit is designed for a 1601 barrier gate operator WITHOUT convenience open ONLY. It CANNOT be used with a 1602 or 1603 operators. The kit provides a break-away bracket assembly for a aluminum break-away arm with OR without LEDs ONLY. If the arm is struck and breaks away (pivots in ONE DIRECTION ONLY, see below), gate operator will automatically shut down. The arm simply snaps back into the release rollers to function normally again.

**Kit Includes:** Arm Pivot Bracket, Arm Sleeve, Arm Wire Harness, Relay Mounting Plate, Arm Pivot Bolt and Arm Securing Bolt Hardware, Power Transformer, Zip Ties, Adhesive Zip Ties.

Optional Aluminum Break-Away Arms Available (sold separately):
Arm WITH LEDs P/N 1601-520  Arm WITHOUT LEDs P/N 1601-522

**Installation**

**Install Arm Pivot Bracket**
Hub MUST already be installed on gate operator. See Installation/Owner’s manual for correct hub installation.

This illustration shows **OPTION #2** (see below). Arm pivot bracket can be rotated 180° from the position shown to allow arm to release in opposite direction - **OPTION #1** (see below). Secure arm pivot bracket with 4 nuts, bolts and washers as shown to hub.

**Arm Break-Away Direction Options**
Arm will only pivot in ONE DIRECTION depending on which way the pivoting arm bracket is installed. Choose the desired break-away direction and install pivoting arm bracket accordingly (note position of release rollers and arm pivot bolt).
Installation Continued

**Attach Arm**
Snap arm sleeve into release rollers on pivoting arm bracket (Option #2 shown here). Slide aluminum arm into arm sleeve. Align appropriate holes together and slide bolts through aligned holes. Secure bolts.

**Note for Option #1 Installation:** The arm sleeve and pivoting arm bracket will be rotated 180° from illustration shown here.

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**Shorten Arm Length if Desired**
This demonstrates procedure for the aluminum arm with LED lights.

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**Cut LED tape on Indicated cut marks.**

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Peel back reflective tape on both sides of arm. Cut the LED tape with scissors ONLY where indicated on the tape or LED wiring inside the tape WILL GET DAMAGED AND NOT LIGHT!

Cut arm where desired with a fine tooth saw. Be careful not to damage the LED tape with the saw. Re stick reflective tape back over LEDs. Reinstall plastic end cap over end of arm.
**Wiring**

### Arm Wire Harness

#### Mount Arm Wire Guard in Knock-Out hole on operator cabinet.

**Note:** Use existing wire restrainers to secure arm wire harness in operator cabinet. Make sure all wires are clear of moving parts.

#### Allow enough slack in the wire for rotating arm.

#### Mount Arm Wire Harness Connector on BOTTOM hole of bracket.

**Note:** Connector mounting position is different for Option #1. See Break-Away Direction Options on page 1.

#### Note for Aluminum arm WITHOUT LEDs:
The aluminum arm without the LED lights P/N 1601-522 arm MUST have the magnetic contact switches connected to the barrier gate operator. The LED bullet plugs have power even though they are not used on the P/N 1601-522 arm. It is best to wrap the plugs in electrical tape to protect them from accidentally touching a metal surface.

**DO NOT OPERATE EITHER ARM WITHOUT MAGNETIC CONTACT SWITCHES FUNCTIONING.**

#### Secure Arm Wire Harness to Bracket

Use included wire restrainer and zip ties to secure ALL wires to pivoting arm bracket after making connections. Allow for some slack in the wires to account for the arm pivoting when arm “Breaks Away” from bracket. Make sure that all wires remain clear of the pivoting arm and the plastic cover.

**Note:** LED Bullet plug is NOT used for arm without LEDs (P/N 1601-522).
Install Relay

Use existing carriage bolt on operator to install relay mounting plate.

1601 operators WITH convenience open CANNOT be USED.

**Wiring Arm to Operator**

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

**Break-Away Arm Reset Procedure**

If arm gets struck and breaks away, gate operator will automatically shut down (Magnetic contact switches are tripped). Simply snap arm back into the release rollers. Make sure all wires are out of the way of the arm when snapping arm back in position. Normal operation can then continue.

**Older Model 1601 Operator Note:** Older model 1601 barrier operator WITHOUT convenience open have TWO existing black wires connected to MAIN terminal #2. Re-connect BOTH of those wires to RELAY #2.

**New Black Wire to main terminal #2**

**Existing Black Wire from main terminal #2 to Relay #2**

**REMOVE existing black wire connected to MAIN terminal #2 and re-connect it to RELAY #2.**

**Arm Wiring Schematic**

Use existing carriage bolt on operator to install relay mounting plate.

Keep arm wire harness clear of all moving parts.

**DANGER**

HIGH VOLTAGE!

**WARNING**

DO NOT OPERATE ARM WITHOUT MAGNETIC CONTACT SWITCHES FUNCTIONING.