

Expanded Collar Protection for NYSE Arca Options

Core trading conditions for collar protection:

1. order imbalances coming out of an auction
2. processing a new incoming order when market is wide*
3. during execution of an order the market becomes wide*

*For the purposes of collar protection, markets are considered wide when width exceeds the values in the table below:

\$0.00 - \$ 1.99	25 cents
\$2.00 - \$5.00	40 cents
\$5.01 - \$10.00	50 cents
\$10.01 - \$20.00	80 cents
> \$20.00	1 dollar

Trade desk may set legal width to a multiple of the above values based market conditions.

LEAPs are always granted 3x legal quote width.

Granting quote width relief will also affect collar values.

Collar protection parameters by order type:

NOTE: In a wide market we do not calculate what the theoretical price of the option should be, whether midpoint or close to bid or offer. Therefore we will offer price protection to Market orders that is more conservative than aggressive. For limit orders, we are taking the view that the client understands they are sending a limit at a certain price, and we will only implement collar protection if the limit order is priced through the bid or offer of our quoted market. Incoming ISO limit orders do not receive any collar protection.

1. Better Limit
 - a. Post at limit or contra side BBO if limit is through contra BBO
 - b. check to collar value for any available trading interest, anything there trades
2. Market
 - a. Check same side BBO
 - b. Posting price of MKT order will be 1 collar from same side BBO
 - c. Look 1 further collar for trading opportunity, trade available volume
 - d. Post any remaining imbalance at last sale price or at original BBO collar price, depending on further trading opportunity

NOTE: By moving market orders one collar from the bid (offer) orders will be aggressive enough so markets that are only slightly wider than legal width will still trade, while extremely wide markets will fall under the collar protection.

Collar Protection Rules:

1. Same side MMQ or Away BBO moves imbalance ahead regardless of collar value
 - a. If new same side MMQ arrives that is priced through (crosses) a contra ABBO, the MMQ will cross the ABBO and trade vs any marketable contra interest while imbalance will be held at ABBO price.
2. Same side order
 - a. Limit—trade to collar or limit price and move imbalance up to lesser aggressive of limit price or 1 collar
 - b. MKT order-- move one collar
3. Contra Side
 - a. If priced through imbalance price, trade @ imbalance price
 - b. ABBO or order/quote arrives within collar--imbalance will move to trade or route

ISO/IOC/FOK/AON/NOW Rules:

Conditional orders are outside the bounds of collar restraints. Same side ISO/IOC/NOW/AON/FOK will immediately execute if conditions to trade are met, regardless if other orders are being held at a collar price.

NOTE: If client wishes to trade immediately and not receive collar protection price in a wide market, the NOW or ISO order type is recommended.

Conditions to end collar protection:

1. Market is legal width
2. Imbalance is exhausted

Additional notes:

The collar parameters are configurable and under the control of trading desk. There may be market conditions where collar protection is not desirable. Trade desk will be able to override on the fly, intraday, on a per-underlying AND global level, at the trade desk personnel's discretion.

Once a collar parameter has been set, an entire transaction will be based on initial collar value. If a transaction is executed at more than one price level, the collar value will not update based on the new bid/offer premium.

Market orders will reject if no reference price exists, i.e., if market order arrives when the series has already opened, but no quotes are present, no NBBO, no last sale price in the series, the market order will reject back to the entering firm.