Omega/Lynx ATS Subscriber Manual
v. 1.6
Effective Date: June 10, 2013

Revision History

Date	Description	Author
August 21, 2008	Standard boardlots (page 4) to change from 100 shares across all traded securities to 100, 500, and 1,000 shares according to Canadian market convention.	Greg King
August 28, 2008	Subscribers are responsible for ensuring orders marked "Short Exempt" are eligible for such treatment under UMIR. Omega's previous method of screening Short Exempt orders against the list of short-exempt symbols was overly restrictive, since UMIR permits the use of the Short Exempt market in other situations (*i.e.*, bundled orders as per MIN 2005-025); removal of such screening will result in more flexibility for subscribers.	Mario Josipovic
October 15, 2008	Subscribers may elect pre-and post-trade attribution although the default remains Anonymous. Omega Subscribers are provided trade-through and book-through protection as default values. Such orders are by default re-priced to eliminate those outcomes. Subscriber may elect non-default values to either bypass protection altogether or may choose to have orders Reject instead of re-price.	Greg King
Oct 6, 2010	Updated RS to IIROC. Removed reference to rebates for passive orders. Clarified Trade Cancellation Policy. Updated section on trade-through book-through protection. Updated Contact	RT
June 10, 2012	Version 1.4.	RT

	General information updates. Updated market hours. Added Crosses, Visible Pegs, Icebergs into Order Types and Order Handling. Added section on Attribution. Added section on Self-Trade Prevention.	
January 2013	General updates.	
April 2013	Clarify Cancellation Policy	
May 2013	Lynx Edits Added Mid-Point Peg	

Introduction

Omega Securities Inc. (Omega) operates Omega ATS and Lynx ATS. Both marketplaces provide the Canadian marketplace with a fast, anonymous, strict price/time priority trading platforms where customers will be able to trade at or better than the CBBO (Canadian Best Bid and Offer) at competitive rates. Omega ATS and Lynx ATS both support securities listed on the following exchanges:

TSX
Venture
CNSX

The purpose of this document is to explain how to become a subscriber, how vendors and subscribers can connect and the trading options and order types offered by the Omega and Lynx ATS platforms. To download the latest version of this document, please check our website at www.omegaats.com .

Orders posted to one marketplace do not interact with orders posted on the other marketplace. Omega ATS and Lynx ATS are segregated from each other. Subscribers can direct orders to interact with only one or both markets and post on their destination of choice.

Joining Omega ATS and Lynx ATS

Becoming an Omega Subscriber

Subscribers must be dealers registered in one or more provinces in Canada and members of the Investment Industry Regulatory Organization of Canada. The dealer will also be required to have a membership with CDS Clearing and Depository Services Inc. or an arrangement with a member to settle trades.

To subscribe, the following additional documents must be completed:
- *Omega Subscriber Agreement*
- *Omega Subscriber Information Form*

Subscribers are encouraged to review the full text of this Omega /Lynx ATS Subscriber Manual, as well as the following:
- *Omega/Lynx ATS Clearly Erroneous Policy*
- *Omega/Lynx ATS Policy on DMA Access*

Becoming an Omega ATS and Lynx ATS Vendor

Service Bureaus and Data Vendors need to complete the following forms to connect to Omega ATS:
- *Omega/Lynx ATS Vendor Agreement*
- *Omega/Lynx ATS Vendor Information Form*

Connecting to Omega ATS and Lynx ATS

Subscribers must connect to Omega via Cross Connect, VPN, Extranet or service bureau and are responsible for arranging them.
- Extranet providers with connections to Omega include BT Radianz, TNS, Savvis, and Atrium.

o   If using a service bureau, have your service bureau contact Omega about establishing a connection.

Order Entry
FIX.4.2 is the access protocol of the Omega ATS and Lynx ATS.

Market Data Feed
Full depth of book market data is available.

Omega ATS and Lynx ATS offer the following Market Data formats.
- o   ITCH 3.00
- o   SoupTCP 2.00

Bandwidth Requirements for Omega ATS and Lynx ATS (combined)
- o   FIX O/E: Recommended 128KB/s
- o   Depth of Book (Uncompressed): Recommended 3MB/s

For complete technical specifications: *Omega ATS Interface Specifications*

Trading on Omega ATS and Lynx ATS

Price, Execution, Liquidity

Omega ATS is a highly competitive marketplace using cutting edge technology and design to provide extremely fast execution times. Omega ATS also uses an inverted pricing model where all remove trades are FREE. If a subscriber enters an order without post-only instruction, it will be matched against other orders of our ATS at the best price. If unable to match, the order will be placed on the ATS book and presented to the market via the ATS data feed.

Lynx ATS uses the same cutting edge and proven technology as Omega ATS; however, Lynx ATS differs in pricing. To complement the different strategies used by the variety of market participants, the ATS offers a maker-taker model.

Market Regulation

Investment Industry Regulatory Organization of Canada ("IIROC") provides market surveillance. Omega ATS and Lynx ATS provide real time data feeds to IIROC allowing the status and trading of all equity symbols to be monitored through the IIROC interface.   Regulatory halts (and resumptions) will be enforced solely at IIROC's discretion.

Order Marking

Subscribers are able to make all UMIR-required designations on all orders types accepted by Omega ATS and Lynx ATS. At this time, both markets support UMIR marking of the order types described at UMIR 6.2(1)(b) (vi) and (viii) through (xvi).

Trading hours

Omega ATS is open for trading between 8:30 AM EST and 5:00 PM EST.

Lynx ATS is open for trading between 8:30am EST and 5:00PM EST.

There is currently no matching facility for orders prior to market open and Omega's marketplaces will not otherwise accept orders prior to market open. The very first order received immediately following market open at 8:30am will be accepted and displayed on Omega ATS or Lynx ATS. Orders are eligible for execution immediately upon acceptance.

Omega ATS and Lynx ATS both support the following features:

Trading Increments

Trading increments are standard across Omega ATS and Lynx ATS

- Increment of standard board lots:
    - $1 and up   100 shares
    - $0.10 and less than $1   500 shares
    - Under $0.10   1000 shares
- Odd lot books are available for both markets.
- No special terms book.
- No sub-penny pricing (except for half-penny increments permitted on orders submitted below $0.50)

Order Priority Queue

Omega ATS and Lynx ATS have order books that follows price/time priority rules for all visible posted orders. Hidden liquidity (hidden portion of iceberg orders) will always have inferior priority to visible liquidity at the same price level.

"Post Only" Orders

Subscribers can submit Execution Instructions that specify orders are to be "posted" to the book. Orders flagged as "Post Only" are not eligible to remove liquidity from the order books. If an order marked "Post Only" is immediately executable (*i.e.*, it can remove liquidity from the order book), it is instead rejected. A "Post Only" order can never take liquidity.

Attribution

On Omega ATS, all orders except Internal Bypass Crosses on Omega are anonymous; however, Omega supports attributed orders where brokers can choose to show their broker number for pre-trade and trade dissemination.

Lynx ATS will have all orders defaulted to attributed, however, an anonymous option will be available as well.

Self-Trade Prevention

Both markets support self-trade prevention to avoid an inadvertent wash trade scenario. Omega can enable this feature at a broker level and provide a key which should be used on all orders that should not interact with each other. Omega offers the option to either cancel the older or newer order where two orders with the same key would interact.

Omega ATS and Lynx ATS Order Types:

Limit Orders

Limit orders are executed at the price (or better) specified in the order. All orders adding liquidity will be placed on either the Omega ATS or the Lynx ATS book at the price in the order. It is possible for an order that removes liquidity to be filled at a better price than specified in the order.

Visible Pegged Orders

Omega ATS and Lynx ATS support two types of visible pegs, Peg to Primary and Peg to Market. Pegged orders are priced using a reference price, based on the Canadian best bid or offer. An order marked as Peg to Primary, will be pegged to the best price on the same side of the order.An order marked as Peg to Market pegs to the opposite side of the order.

Mid Point Pegged Orders

Mid-point peg orders are dynamic hidden orders which rests at the mid-point between the Canadian Best Bid and Offer (CBBO). When the CBBO changes, the mid-point order will dynamically re-price and may rest at a full or half tick. When the CBBO is crossed, or when a limit price is reached, the mid-point order will be held and will no longer be executable until a valid CBBO is established, or when the mid-point returns to within the limit price of the order.

Iceberg Orders

Iceberg orders are limit orders that allow our subscribers to enter the full quantity of their limit order, but exposes to the market book only a fraction of the full order (minimum one board lot).

Day Orders

Day orders are effective during normal market hours between 8:30 AM EST and 5:00 PM EST. Orders that are still open at 5:00 PM will receive "done for day" messages informing the originator that the order has been closed.

Fill or Kill

If the order cannot be completely filled immediately, it is cancelled rather than being placed on the book.

Immediate or Cancel

The order is matched against as many shares as possible available at a given limit, and cancels any outstanding balance.

All or None

Omega ATS and Lynx ATS accept All-or-None order requests but they will be treated as a Fill or Kill.

Good Till Cancelled

Not currently supported.

Market Orders

Neither ATS' accept Market Orders.

Short Sale

The Short Sale marker as well as the Short-Marking Exempt marker (SME) is supported on both Omega ATS and Lynx ATS

Omega ATS and Lynx ATS Order Handling

Omega/Lynx Crosses

Internal Bypass Cross
An Internal Bypass Cross is a trade between two different accounts managed by the same portfolio manager. This type of cross is not subject to interference. The trader submitting this order is responsible for ensuring that the execution price of the cross meets UMIR requirements. The bypass marker must be explicitly included and set to bypass or the order will be rejected. A bypass cross will not interact with hidden liquidity.

Intentional Bypass Cross
Intentional By-Pass Cross - A trade that occurs when two accounts of the same Subscriber buy and sell the same security at an agreed price and volume. Crosses on Lynx receive time priority, all intentional crosses on Lynx are by-pass crosses, meaning they do not interact with hidden liquidity. All crosses must be flagged by the user with the Intentional By-Pass Cross and DAO markers. . Intentional By-Pass Crosses not so marked by the user will be rejected by Lynx. **It is a Subscriber's responsibility to displace better priced liquidity in the context of the CBBO prior to putting up a by-pass cross outside the context of the current market.**

Pegged Orders

Omega currently supports two visible pegged order types, Peg to Primary and Peg to Market with the ability to set offsets for Peg to Market, and a fully hidden mid-point peg order. Both peg types are visible and can only be submitted at full tick price increments. A Pegged order loses time priority every time the order is re-priced.

Offset
Omega supports the use of the Peg Difference tag to provide an offset to the reference price. An offset is the price difference between the reference price and the desired price of the pegged order. The user will enter in a price offset (0.01 for one penny) and the offset would be added or subtracted from the reference price depending on the side of the order and the peg type. Unsupported offsets will be rejected.

Peg to Primary
A Pegged to Primary Order is an order which is continuously re-priced based on a reference price on the same side of the order established from the Canadian Best bid/Offer. If a buy order is submitted, the reference price would be the Canadian best bid. Similarly, a sell, short or short exempt order would be pegged to the Canadian best offer. When the price of an order is re-priced to its limit price, the order will be posted at the limit price and will not move beyond this. At this time, the order will no longer peg to the CBBO, even if the price moves back with the pre-defined limit price.

Canadian Best Bid	Canadian Best Offer
$10.00	$10.01

- A Peg to Primary buy order with no offset will be priced at $10.00. As the Canadian Best Bid moves, the pegged order will be re-priced to the Bid price.
  - A zero offset is support for Primary Peg at this time.

- A Peg to Primary sell order with an offset of $0.02 will be priced at $10.03. As the Canadian Best Offer moves, the pegged order will be re-priced to the Offer price.
  - A zero offset is supported for Primary Peg at this time.

Peg to Market

A pegged to market is similar to the Peg to Primary peg type; however, Peg to Market utilizes the reference price opposite to the side of the order. For a buy order that is pegged to market, the Canadian best offer is used as the reference price. Similarly, for a sell, short, or short exempt order, the Canadian best bid is used. Currently, a Peg to Market order must be submitted with an offset which would prevent the order from locking the market.

Canadian Best Bid	Canadian Best Offer
$9.95	$10.00

- A Peg to Market buy order is entered with a $0.01 offset. The order will be priced at $9.99.
  - A "0" offset is rejected for Peg to Market buy orders.

- A Peg to Market sell order is entered with a $0.03 offset. The order will be priced at $9.98.
  - A "0" offset is rejected for Peg to Market sell orders.

Mid-Point Peg

Mid-point peg orders are hidden orders that will always be pegged to the mid-point, including half tick increments, between the Canadian Best Bid and Offer (CBBO). These pegged orders will remain executable until the pegged price exceeds its limit price or if the CBBO is locked or crossed, in which case, the pegged order will be held and not executable. Once the pegged price moves within the order's limit price, or if the CBBO is restored, the order resumes the dynamic re-pricing and is executable. Mid-point peg orders will never become visible.

Iceberg Orders

Iceberg orders are limit orders that are submitted with the full quantity of their limit order, but exposes to the market book only a fraction of the full order (minimum one board lot). The iceberg order will refresh the fractional quantity selected automatically when the visible portion has been depleted until the full quantity of the order is completed. The undisclosed volume will have no priority over disclosed volumes at a given price. The "refreshed volume" created after the fulfilling of a disclosed fraction of the complete order will take its natural place in time sequence at a given price as any new order. Orders marked as Bypass will only interact with the visible portion and will not interact with the hidden portion of an iceberg order.

Trade-Through / Book-Through Protection

All orders entered onto Omega ATS or Lynx ATS are, *by default*, provided with trade-through and book-through protection. If the order is immediately executable but would trade-through a better-priced order on an away-market, the order is re-priced to one tick away from the better priced far-side of the away-market and posted on the market of choice. If an order that is not immediately executable but would book-through a better-priced away-market (i.e. would result in a crossed consolidated market price), the order is re-priced to one tick away from the better priced far-side of the away market. (N.B. The re-pricing feature is not dynamic and will only re-price as necessary at the time of order entry. IIROC does require protected marketplaces to be dynamically monitored once an order has been validly booked. In other words, once a limit order is validly re-priced and booked, it constitutes the legitimate Canadian Best Bid/Offer until executed, price modified or cancelled.)

Subscribers can also elect non-default values:

1. By-pass the trade-through /book-through protection altogether by marking their orders as a Direct Action Order (DAO).

2. Elect to have orders that would otherwise trade or book-through *Reject* instead of re-pricing.

3. Route orders out to away markets.

Non-default values are entered on an order-by-order basis. For details, please see FIX Tags 6820 and 6821 in the Omega Interface Specifications V 1.15.

Subscribers may opt to configure the default setting for price protection set to "off" at the FIX session level. By doing so, only by sending a sending Tag 6820 as "On" will protection be provided.

Handling of Halted Equities

Orders that exist on the ATS book at the time a symbol is halted (either by a regulator or at the request of the listing venue) will be cancelled automatically by Omega ATS or Lynx ATS. New orders will not be accepted on an equity that has been halted. Order entry and matching will not occur until trading of the equity is resumed. IIROC can specifically request a trading halt/resume on any equity on the ATS.

Market Open / Trade Resumption

The Omega ATS and Lynx ATS will both be open to trade at 8:30 a.m. Eastern Time, neither marketplaces accept orders before the Opening in Phase 1, an opening auction is not necessary at the start of the trading day (or prior to the resumption of trading in a halted symbol).

Trade Settlement

Subscribers trade directly with the contra-party on both ATS' and settle through CDS. Omega ATS and Lynx ATS send a trade file to CDS at the end of each trading day for settlement. Subscribers or their carrying broker, if applicable, must mark **OMEG** or LYNX as the marketplace on their CDS file submissions.

Trade Cancellations

IIROC has the authority to amend orders and/or" Cancel trades. Omega ATS and Lynx ATS have the ability to amend and cancel trades. In the event of a voluntary cancelation or amendment (where both counter parties agree to the cancelation or amendment), Omega will inform IIROC of the impending action. Trades canceled on trade date will not be included in the CDS trade file and will be removed from the trading record. In such cases, modified trade information will be included in both the Omega ATS' or Lynx ATS' CDS file and their respective trading tape. In the event one party does not agree to a voluntary bust, the contra can contact IIROC to request a review for either a cancelation or amendment.

IIROC Fees

Effective April 1st, 2012 IIROC started charging broker dealers directly for the IIROC fee.

Billing

Subscribers are required to participate in Pre-Authorized Debit Plan.

Subscribers are provided daily reporting at the end of the trading day. Omega users can drill down to daily data for Added and Removed shares. Information available includes:
- Shares Added
- Shares Removed
- Charge Rate for Remove Liquidity
- Total Charge of all Removed Shares

Subscribers will receive a monthly invoice on the third business day of each month for trading activity of the previous month. Subscribers will also receive a breakdown of trading charges by trader ID, as well as a list of all trades.

Contacts

Omega Operations: 416.646.2428

Other contacts:

- Daily operations assistance and production marketplace issues: operations@omegaats.com

- Inquires related to compliance: compliance@omegaats.com

- Billing related questions: billing@omegaats.com

- Connection or market data problems in production: support@omegaats.com