



NASDAQ GEMX INET SYSTEM SETTINGS

1. Hours of Operation

6:00 a.m. ET – System begins accepting orders.

9:30 a.m. ET – System begins disseminating imbalance and price information for the opening auction.

9:30 a.m. ET – System begins executing orders.

4:00 p.m. ET – System stops accepting and executing equity options orders.

4:15 p.m. ET – System stops accepting and executing ETF and Index Options orders.

2. OPENING

- The GEMX Opening Process utilizes the Primary Listing Market for the Underlying Security. The underlying security must be open on the primary market for 100ms for the Opening Process to commence.
- **Open Delay** – 5 seconds – A delay imposed if at least two CMMs or the PMM have not submitted quotes and the market for the underlying has an opening trade or quote.
- **Quality Opening Market Differentials Table** – The table of values defined as an acceptable bid/ask differential in order to establish a “quality opening market.”
 - **Non-Penny Issues:**

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$1.00	\$0.15
\$1.01	\$2.00	\$0.22
\$2.01	\$3.00	\$0.30
\$3.01	\$5.00	\$0.45
\$5.01	\$7.00	\$0.60
\$7.01	\$10.00	\$0.75
\$10.01	\$20.00	\$0.90
\$20.01	\$30.00	\$1.20
\$30.01	\$40.00	\$1.50
\$40.01	40.01+	\$2.25

- **Standard Penny Issues (excluding SPY/IWM/QQQQ):**

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$1.00	\$0.10
\$1.01	\$2.00	\$0.10

\$2.01	\$3.00	\$0.14
\$3.01	\$5.00	\$0.20
\$5.01	\$7.00	\$0.30
\$7.01	\$10.00	\$0.40
\$10.01	\$15.00	\$0.60
\$15.01	\$20.00	\$0.80
\$20.01	\$30.00	\$1.20
\$30.01	\$40.00	\$1.60
\$40.01	\$40.01+	\$2.00

○ **Special Penny Issues (SPY/IWM/QQQQ)**

Price low end of range	Price high end of range	Maximum bid/ask differential
\$0.00	\$0.40	\$0.06
\$0.41	\$1.00	\$0.10
\$1.01	\$2.00	\$0.12
\$2.01	\$3.00	\$0.14
\$3.01	\$5.00	\$0.18
\$5.01	\$7.00	\$0.24
\$7.01	\$10.00	\$0.40
\$10.01	\$15.00	\$0.60
\$15.01	\$20.00	\$0.80
\$20.01	\$30.00	\$1.00
\$30.01	\$40.00	\$1.20
\$40.01	\$40.01+	\$1.60

● **Imbalance Timer – 250 milliseconds** – Amount of time the system may wait before opening an option with an imbalance after broadcasting an Imbalance Message.

● **Opening Quote Range Table** – The table of values added to the offer and subtracted from the bid to establish GEMX’s maximum Opening Quote Range.

○ **Non-Penny Issues:**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
\$0.00	\$1.00	\$0.10	1.5X
\$1.01	\$2.00	\$0.15	1.5X
\$2.01	\$3.00	\$0.20	1.5X
\$3.01	\$5.00	\$0.30	1.5X
\$5.01	\$7.00	\$0.40	1.5X
\$7.01	\$10.00	\$0.50	1.5X
\$10.01	\$20.00	\$0.60	1.5X
\$20.01	\$30.00	\$0.80	1.5X

\$30.01	\$40.00	\$1.00	1.5X
\$40.01	+	\$1.50	1.5X

○ **Standard Penny Issues (excluding SPY/IWM/QQQQ):**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Acceptable Range for options that expire >9 months away
\$0.00	\$1.00	\$0.05	\$0.10
\$1.01	\$2.00	\$0.05	\$0.14
\$2.01	\$3.00	\$0.07	\$0.18
\$3.01	\$5.00	\$0.10	\$0.40
\$5.01	\$7.00	\$0.15	\$0.50
\$7.01	\$10.00	\$0.20	\$0.60
\$10.01	\$15.00	\$0.30	\$0.75
\$15.01	\$20.00	\$0.40	\$0.90
\$20.01	\$30.00	\$0.60	\$1.20
\$30.01	\$40.00	\$0.80	\$1.50
\$40.01	+	\$1.00	\$2.25

○ **Special Penny Issues (SPY/IWM/QQQQ)**

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
\$0.00	\$0.40	\$0.03	2.0X
\$0.41	\$1.00	\$0.05	2.0X
\$1.01	\$2.00	\$0.06	2.0X
\$2.01	\$3.00	\$0.07	2.0X
\$3.01	\$5.00	\$0.09	2.0X
\$5.01	\$7.00	\$0.12	2.0X
\$7.01	\$10.00	\$0.20	2.0X
\$10.01	\$15.00	\$0.30	1.5X
\$15.01	\$20.00	\$0.40	1.5X
\$20.01	\$30.00	\$0.50	1.5X
\$30.01	\$40.00	\$0.60	1.5X
\$40.01	+	\$0.80	1.5X

- **Number of Imbalance Process Iterations before an Opening with an Imbalance** – 4 iterations – Number of times the system will repeat the imbalance process before opening with a remaining imbalance.
- **Opening Route Timer** – 200 ms – Amount of time the system waits before routing to an away market as part of the opening process.

3. ACCEPTABLE TRADE RANGE & PROTECTIONS

- **Max number of Acceptable Trade Range Iterations: 1**
- **Acceptable Trade Range (ATR)** – Acceptable Trade Range boundaries limiting the range of prices incoming Simple Orders and quotes (except for All-or-None Orders) will be allowed to execute.

Non-Penny Issues		
Price low end of range	Price high end of range	Acceptable Range from Reference Price
\$0.00	\$3.00	\$0.25
\$3.01	+	\$0.50

Standard Penny Issues (excluding SPY/IWM/QQQQ):		
Price low end of range	Price high end of range	Acceptable Range From Reference Price
\$0.00	\$3.00	\$0.05
\$3.01	+	\$0.25

Special Penny Issues (SPY/IWM/QQQQ)		
Price low end of range	Price high end of range	Acceptable Range From Reference Price
\$0.00	\$3.00	\$0.05

\$3.01	+	\$0.05
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- **Market Order Spread Protection** - default \$5.00 – Maximum bid/ask differential permissible for a Market Order to be accepted by the trading system; if the bid/ask differential of the NBBO and internal BBO is wider than a configurable amount (configured at the underlying symbol level), a Market Order submitted into the system will be rejected; this protection is not applicable to complex orders. All symbols are configured at 5.00, with the following exceptions:

<u>Symbol</u>	<u>Width</u>
AMZN	\$20.00
AZO	\$20.00
BKNG	\$22.00
BLK	\$20.00
CHE	\$20.00
CHTR	\$20.00
CMG	\$20.00
CSGP	\$20.00
EQIX	\$20.00
GOOG	\$20.00
GOOGL	\$20.00
ICPT	\$20.00
ISRG	\$20.00
LMT	\$20.00

<u>Symbol</u>	<u>Width</u>
MED	\$20.00
MELI	\$20.00
MKL	\$22.00
NDX	\$22.00
NOC	\$20.00
NTES	\$20.00
ORLY	\$20.00
REGN	\$20.00
ROP	\$20.00
SIVB	\$20.00
TDG	\$20.00
TLRY	\$20.00
TSLA	\$20.00

4. AUCTIONS

- **Auction Timers** – Below are the auction timer configurations for GEMX:

Auction Type	Duration
Facilitation	100 milliseconds
Flash	150 milliseconds
PIM	100 milliseconds
Solicitation	100 milliseconds
Block	100 milliseconds