



**CRSP<sup>®</sup> RESEARCH DATA PRODUCTS**

**CRSPMI INTRADAY GUIDE**



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# OVERVIEW

The CRSPMI Intraday files include second-by-second levels of CRSP Market Indexes and End of Day levels. The ten files that comprise the data set are provided in SAS, ASCII, and R formats are listed below:

| File Name           | SAS Size | ASCII Size | R Size  | Start Date | Description   |
|---------------------|----------|------------|---------|------------|---|
| Cap                 | 10.1 GB  | 18.2 GB    | 6.6 GB  | 4/1/2011   | CRSP Market Cap Index levels – second by second           |
| Core                | 161.3 GB | 294 MB     | 114 MB  | 12/4/2023  | CRSP Core Cap Index levels – second by second             |
| Vg                  | 11.4 GB  | 19.9 GB    | 7.8 GB  | 9/10/2012  | CRSP Value Growth Index levels – second by second         |
| Sector              | 12.2 GB  | 21.7 GB    | 7.5 GB  | 9/21/2012  | CRSP Sector Index levels – second by second               |
| ESG                 | 1.5 GB   | 2.7 GB     | 1.1 GB  | 9/7/2021   | CRSP ISS ESG Index Levels – second by second / end of day |
| Eod_cap             | <1 MB    | <1 MB      | <1 MB   | 3/31/2011  | CRSP Market Cap Index levels – end of day                 |
| Eod_core            | <1 MB    | <1 MB      | <1 MB   | 12/4/2023  | CRSP Core Cap Index levels – end of day                   |
| Eod_vg              | <1 MB    | <1 MB      | <1 MB   | 9/7/2012   | CRSP Value Growth Index levels – end of day               |
| Eod_sector          | <1 MB    | <1 MB      | <1 MB   | 9/20/2012  | CRSP Sector Index levels – end of day                     |
| Eod_ESG             | <1 MB    | <1 MB      | <1 MB   | 9/7/2021   | CRSP ISS ESG Index levels – end of day                    |
| Total Zip File Size | 23.1 GB  | 14.3 GB    | 22.7 GB | N/A        | Zipped File   |
| Total File Size     | 33.5 GB  | 59.9 GB    | 22.0 GB | N/A        | Unzipped File   |

\*Price level indexes start dates. Total Return level indexes start at various other dates listed in Index List details at the end of this document.

\*\* Approximate file sizes as of April, 2024.

## FILE LAYOUTS

Second-by-Second file layouts for index families differ only by the number of indexes in the family. ASCII files are pipe delimited.

- The first column of all files is the DateTime field in YYYY-MM-DD HH:MM:SS format.
- Remaining columns are index levels, each identified by Index Ticker. Levels in the ASCII files are printed at 13.6. The six decimal places represent the full precision that is provided to CRSP.

End-of-Day file layouts for index families differ only by the number of indexes in the family. ASCII files are pipe delimited.

- The first column of all files is the Date field in YYYY-MM-DD format.
- Remaining columns are index levels, each identified by Index Ticker. Levels in the ASCII files are printed at 13.6. The six decimal places are consistent with the maximum available in the second-by-second files.

## FILE NOTES

- There are two sets of each category of indexes, Total Return, and Price Only.
- For future reference: In the CRSP historic products, our internal identifier, INDNO includes both total return and price only data. Tickers, CUSIPS, and other identifiers for CRSP products will serve as descriptor fields and not as access keys.
- Consistently for all indexes and for the full series, the End-of-Day value and the following day 9:30am (ET) values do not match. This is due to the application of cash dividends.
- For capitalization price-only indexes, prior to August 2, 2012, roughly 15% of the End-of-Day values do not match the 9:30 ET open values. These differences are related to the handling of late corporate actions. Data processing was improved, eliminating the mismatches after the August date.
- CRSP RESTATED INDEXES FOR SEPTEMBER 30 AND OCTOBER 1: CRSP restated end-of-day index levels for September 30 and October 1, 2012 due to a closing price error for Leidos Holdings, ticker: LDOS (from \$43.977143 to \$45.52),

resulting in minor changes to the Price and Total Return index levels for the following six indexes: Total Market, Mid-Cap, Large-Cap, Technology, Mid-Cap-Value and Large-Cap-Value Indexes.

- An additional day is tacked onto the beginning of the files to allow for an end-of-day return on the first trading day.

## START DATE AND INDEX = 1000 DATES

The second-by-second levels data availability of the indexes vary depending on when they were released to the public and consumed by IDC's basket calculator.

### TOTAL MARKET AND CAPITALIZATION INDEXES

- Price-only index levels begin April 1, 2011 and are indexed to 1000 on the start of that date.
- Total return index levels, while indexed to 1000 on the start of April 1, 2011, begin in the data files on December 7, 2012.
- **Exception:** Small Cap ex-Real Estate price-only index has a start date of September 10, 2012. The price-only and total return indexes are both indexed to 1000 on the start of that same date.

### VALUE/ GROWTH INDEXES

- Price-only index levels begin September 10, 2012 and are indexed to 1000 on the start of that date.
- Total return index levels, while indexed to 1000 on the start of September 10, 2012, begin in the data files on December 7, 2012.

### SECTOR INDEXES

- Sector indexes were based at 1000 on a date in the series that is earlier than the date that we are starting the indexes in these files. The September 21 start date is used because it is as of this date that the current constraint methodology was finalized.
- Price-only index levels begin September 21, 2012 and are indexed to 1000 on the start of February 2, 2012.
- Total return index levels, while indexed to 1000 on the start of February 2, 2012, begin in the data files on December 7, 2012.
- Exception: Real Estate & REITs price and total return indexes are indexed to 1000 on the start of April 1, 2011. This is because they were released with the Total Market and Capitalization Indexes.

### CRSP ISS ESG INDEXES

- ESG Indexes price-only index levels and total return index levels begin on September 7, 2021 and are indexed to 1000 on the start of that date.

### CRSP CORE INDEXES

- Core, Total Market ex-Mega, and Small/Micro Cap indexes are initialized on December 4, 2023, based as if they began at 1000 on the start of day on April 1, 2011, and their constituents each day were the composite of their underlying Mega, Mid, Small, and Micro Cap indexes.
- Core Cap Value and Growth index levels are initialized on December 4, 2023, based as if they began at 1000 at the start of day on September 10, 2012, and their constituents each day are estimated based on their underlying indexes. For purposes of assigning Value or Growth to a company in Core Cap each day for this calculation, the assignment uses the sum of the corresponding Large Cap and Small Cap Value or Growth style allocations.

## FREEZES

Short freezes in the second-by-second files prior to June 2012 occur, on average, a few times a day. After that time, they occur only once or twice a month. Even rarer – less than 20 in the entire history – are periods in excess of 60 seconds where the basket calculator froze or data were unavailable. These exceptional cases are sorted by date and are listed in the table below.

### STATIC VALUES >= 1 MINUTE

| Begin Date | Begin Time | End Date   | End Time | Count  | Indexes Impacted |        |               |     |
|------------|------------|------------|----------|--------|------------------|--------|---------------|-----|
|            |            |            |          |        | Capitalization   | Sector | Value/ Growth | ESG |
| 5/26/2011  | 09:30:00   | 5/26/2011  | 11:41:29 | 7,890  | x                |        |               |     |
| 8/5/2011   | 10:06:59   | 8/5/2011   | 10:11:46 | 288    | x                |        |               |     |
| 8/5/2011   | 10:11:53   | 8/5/2011   | 16:00:00 | 20,888 | x                |        |               |     |
| 8/9/2011   | 14:21:59   | 8/9/2011   | 14:23:15 | 77     | x                |        |               |     |
| 8/9/2011   | 14:24:01   | 8/9/2011   | 14:29:53 | 353    | x                |        |               |     |
| 8/9/2011   | 14:30:36   | 8/9/2011   | 14:39:59 | 564    | x                |        |               |     |
| 8/10/2011  | 15:47:53   | 8/10/2011  | 15:55:32 | 460    | x                |        |               |     |
| 8/10/2011  | 15:55:33   | 8/10/2011  | 15:57:08 | 96     | x                |        |               |     |
| 8/10/2011  | 15:57:54   | 8/10/2011  | 15:59:04 | 71     | x                |        |               |     |
| 8/12/2011  | 09:30:00   | 8/12/2011  | 10:00:00 | 1,801  | x                |        |               |     |
| 8/18/2011  | 10:03:44   | 8/18/2011  | 10:05:00 | 77     | x                |        |               |     |
| 9/1/2011   | 10:04:14   | 9/1/2011   | 10:07:05 | 172    | x                |        |               |     |
| 9/1/2011   | 10:07:06   | 9/1/2011   | 10:11:49 | 284    | x                |        |               |     |
| 9/27/2011  | 10:00:40   | 9/27/2011  | 10:02:46 | 127    | x                |        |               |     |
| 10/18/2011 | 15:58:59   | 10/18/2011 | 16:00:00 | 62     | x                |        |               |     |
| 10/19/2011 | 10:45:02   | 10/19/2011 | 11:00:00 | 899    | x                |        |               |     |
| 2/13/2012  | 09:30:00   | 2/13/2012  | 16:00:00 | 23,401 | x                |        |               |     |
| 8/15/2013  | 14:30:30   | 8/15/2013  | 14:31:36 | 67     | x                | x      | x             |     |
| 4/10/2018  | 14:33:41   | 4/10/18    | 14:33:47 | 7      | x                | x      | x             |     |
| 4/11/2018  | 15:39:57   | 4/11/18    | 15:40:00 | 4      | x                | x      | x             |     |
| 5/2/2018   | 12:03:07   | 5/2/18     | 12:03:15 | 9      | x                | x      | x             |     |
| 6/8/2018   | 15:42:34   | 6/8/18     | 15:42:49 | 16     | x                | x      | x             |     |
| 6/12/2018  | 12:36:42   | 6/12/18    | 12:36:47 | 6      | x                | x      | x             |     |
| 6/28/2018  | 15:41:50   | 6/28/18    | 15:41:57 | 8      | x                | x      | x             |     |
| 7/2/2018   | 12:46:50   | 7/2/18     | 12:46:57 | 8      |                  |        | x             |     |
| 7/2/2018   | 12:46:51   | 7/2/18     | 12:46:51 | 7      | x                | x      |               |     |
| 7/26/2018  | 10:07:11   | 7/26/18    | 10:07:16 | 6      | x                | x      | x             |     |
| 8/1/2018   | 15:36:16   | 8/1/18     | 15:36:24 | 9      | x                | x      | x             |     |
| 8/7/2018   | 15:15:09   | 8/7/18     | 15:15:14 | 6      | x                | x      | x             |     |
| 8/9/2018   | 13:13:56   | 8/9/18     | 13:14:01 | 6      | x                | x      | x             |     |
| 8/10/2018  | 13:25:34   | 8/10/18    | 13:25:37 | 4      | x                | x      | x             |     |
| 9/13/2018  | 14:38:07   | 9/13/18    | 14:38:15 | 9      | x                | x      | x             |     |
| 9/14/2018  | 9:44:49    | 9/14/18    | 9:44:57  | 9      | x                | x      | x             |     |
| 10/12/18   | 9:30:02    | 10/12/18   | 9:30:06  | 5      |                  |        | x             |     |
| 1/22/2019  | 9:30:01    | 1/22/2019  | 9:30:06  | 6      |                  |        | x             |     |
| 1/28/2019  | 9:30:03    | 1/28/2019  | 9:30:08  | 6      |                  |        | x             |     |

|            |            |           |          |       | Indexes Impacted |        |               |     |
|------------|------------|-----------|----------|-------|------------------|--------|---------------|-----|
| Begin Date | Begin Time | End Date  | End Time | Count | Capitalization   | Sector | Value/ Growth | ESG |
| 1/30/2019  | 9:30:03    | 1/30/2019 | 9:30:06  | 4     |                  |        | x             |     |
| 2/12/2019  | 9:30:02    | 2/12/19   | 9:30:06  | 5     |                  |        | x             |     |
| 3/5/2019   | 9:30:01    | 3/5/19    | 9:30:04  | 4     |                  |        | x             |     |
| 3/11/2019  | 9:30:04    | 3/11/19   | 9:30:07  | 4     |                  |        | x             |     |
| 3/12/2019  | 9:30:03    | 3/12/19   | 9:30:06  | 4     |                  |        | x             |     |
| 3/18/2019  | 9:30:01    | 3/18/19   | 9:30:05  | 5     |                  |        | x             |     |
| 3/19/2019  | 9:30:01    | 3/19/19   | 9:30:04  | 4     |                  |        | x             |     |
| 3/25/2019  | 9:30:01    | 3/25/19   | 9:30:044 | 4     |                  |        | x             |     |
| 3/26/2019  | 9:30:01    | 3/26/219  | 9:30:04  | 4     |                  |        | x             |     |
| 4/1/2019   | 9:30:02    | 4/1/2019  | 9:30:05  | 4     |                  |        | x             |     |
| 4/2/2019   | 9:30:01    | 4/2/2019  | 9:30:06  | 6     |                  |        | x             |     |
| 4/8/2019   | 9:30:05    | 4/8/2019  | 9:30:08  | 4     |                  |        | x             |     |
| 4/9/2019   | 9:30:01    | 4/9/2019  | 9:30:05  | 5     |                  |        | x             |     |
| 4/16/2019  | 10:41:09   | 4/16/2019 | 10:41:13 | 5     | x                | x      | x             |     |
| 4/16/2019  | 10:47:37   | 4/16/2019 | 10:47:45 | 9     | x                | x      | x             |     |
| 4/23/2019  | 9:30:01    | 4/23/2019 | 9:30:06  | 6     |                  |        | x             |     |
| 4/29/2019  | 9:30:01    | 4/29/2019 | 9:30:08  | 8     |                  |        | x             |     |
| 4/29/2019  | 9:30:02    | 4/29/2019 | 9:30:08  | 7     | x                | x      |               |     |
| 5/6/2019   | 9:30:04    | 5/6/2019  | 9:30:07  | 4     | x                | x      | x             |     |
| 5/7/2019   | 9:30:02    | 5/7/2019  | 9:30:05  | 4     |                  |        | x             |     |
| 5/20/2019  | 9:30:03    | 5/20/2019 | 9:30:08  | 6     |                  |        | x             |     |
| 5/20/2019  | 9:30:05    | 5/20/2019 | 9:30:08  | 4     | x                | x      |               |     |
| 6/10/2019  | 9:30:03    | 6/10/2019 | 9:30:10  | 8     |                  |        | x             |     |
| 6/20/2019  | 9:30:01    | 6/20/2019 | 9:30:06  | 6     |                  |        | x             |     |
| 6/24/2019  | 9:30:02    | 6/24/2019 | 9:30:08  | 7     |                  |        | x             |     |
| 7/2/2019   | 9:30:02    | 7/2/2019  | 9:30:05  | 4     |                  |        | x             |     |
| 7/5/2019   | 9:30:01    | 7/5/2019  | 9:30:08  | 8     |                  |        | x             |     |
| 7/8/2019   | 9:30:02    | 7/8/2019  | 9:30:09  | 8     |                  |        | x             |     |
| 7/9/2019   | 9:30:02    | 7/9/2019  | 9:30:06  | 5     |                  |        | x             |     |
| 7/22/2019  | 9:30:02    | 7/22/2019 | 9:30:08  | 7     |                  |        | x             |     |
| 7/29/2019  | 9:30:02    | 7/29/2019 | 9:30:09  | 8     |                  |        | x             |     |
| 8/5/2019   | 9:30:01    | 8/5/2019  | 9:30:08  | 8     |                  |        | x             |     |
| 8/5/2019   | 9:30:04    | 8/5/2019  | 9:30:07  | 4     | x                | x      |               |     |
| 8/6/2019   | 9:30:03    | 8/6/2019  | 9:30:07  | 5     |                  |        | x             |     |
| 8/7/2019   | 9:30:02    | 8/7/2019  | 9:30:07  | 6     |                  |        | x             |     |
| 1/7/2020   | 12:36:06   | 1/7/2020  | 12:36:12 | 7     | X                | X      | X             |     |
| 3/9/2020   | 9:34:14    | 3/9/2020  | 9:49:13  | 900   | X                | X      | X             |     |
| 3/12/2020  | 9:35:45    | 3/12/2020 | 9:50:44  | 900   | X                | X      | X             |     |
| 3/16/2020  | 9:30:30    | 3/16/2020 | 9:45:01  | 872   | X                | X      | X             |     |
| 3/18/2020  | 12:56:18   | 3/18/2020 | 12:56:40 | 23    | X                | X      | X             |     |
| 3/18/2020  | 12:56:41   | 3/18/2020 | 13:11:17 | 877   | X                | X      | X             |     |
| 3/23/2020  | 15:55:30   | 3/23/2020 | 15:55:37 | 8     | X                | X      | X             |     |

| Begin Date | Begin Time | End Date   | End Time  | Count | Indexes Impacted |        |               |     |
|------------|------------|------------|-----------|-------|------------------|--------|---------------|-----|
|            |            |            |           |       | Capitalization   | Sector | Value/ Growth | ESG |
| 4/27/2020  | 14:00:32   | 4/27/2020  | 14:00:36  | 5     | X                | X      | X             |     |
| 6/4/20     | 15:55:23   | 6/4/20     | 15:55:26  | 4     | X                | X      | X             |     |
| 6/5/20     | 9:35:02    | 6/5/20     | 9:35:05   | 4     |                  |        | X             |     |
| 6/23/20    | 15:29:00   | 6/23/20    | 15:29:11  | 12    |                  |        | X             |     |
| 6/23/20    | 15:29:03   | 6/23/20    | 15:29:09  | 7     | X                | X      |               |     |
| 7/14/20    | 15:50:05   | 7/14/20    | 15:50:10  | 6     |                  |        | X             |     |
| 9/3/20     | 15:56:18   | 9/3/20     | 15:56:21  | 4     | X                | X      |               |     |
| 9/3/20     | 15:56:18   | 9/3/20     | 15:56:24  | 7     |                  |        | X             |     |
| 9/11/20    | 10:11:25   | 9/11/20    | 10:11:31  | 7     |                  |        | X             |     |
| 9/23/20    | 12:02:37   | 9/23/20    | 12:02:40  | 4     | X                | X      | X             |     |
| 4/29/2022  | 10:19:04   | 4/29/2022  | 10:19:047 | 4     |                  |        |               | X   |
| 10/17/2022 | 9:30:05    | 10/17/2022 | 9:30:16   | 11    | X                | X      | X             |     |
| 1/20/2023  | 13:00:04   | 1/20/2023  | 13:00:07  | 4     | X                | X      | X             |     |

## LARGE RETURNS (ABSOLUTE VALUE)

On two occasions, invalid constituent level ticks came through the feed and impacted index returns. These anomalies are beyond CRSP's control and, fortunately, are infrequent and self-correcting. One was for less than one minute, the second for nearly two minutes. The impact of each is displayed in the table below.

| Date      | Time       | Return   | Price Return Ticker | Total Return Ticker | Index Name           |
|-----------|------------|----------|---------------------|---------------------|----------------------|
| 3/1/2013  | 9:30:20 AM | 103.51%  | CRSPID1             | CRSPIDT             | CRSP US Industrials  |
|           | 9:30:20 AM | 1066.88% | CRSPMC1             | CRSPMCT             | CRSP US Micro Cap    |
|           | 9:30:20 AM | 13.37%   | CRSPTM1             | CRSPTMT             | CRSP US Total Market |
|           | 9:31:06 AM | -50.77%  | CRSPID1             | CRSPIDT             | CRSP US Industrials  |
|           | 9:31:06 AM | -91.43%  | CRSPMC1             | CRSPMCT             | CRSP US Micro Cap    |
|           | 9:31:06 AM | -11.90%  | CRSPTM1             | CRSPTMT             | CRSP US Total Market |
| 5/16/2013 | 9:30:01 AM | 15.45%   | CRSPFN1             | CRSPFNT             | CRSP US Financials   |
|           | 9:30:01 AM | 223.13%  | CRSPMC1             | CRSPMCT             | CRSP US Micro Cap    |
|           | 9:30:01 AM | 2.83%    | CRSPTM1             | CRSPTMT             | CRSP US Total Market |
|           | 9:32:21 AM | -13.47%  | CRSPFN1             | CRSPFNT             | CRSP US Financials   |
|           | 9:32:21 AM | -69.09%  | CRSPMC1             | CRSPMCT             | CRSP US Micro Cap    |
|           | 9:32:21 AM | -2.80%   | CRSPTM1             | CRSPTMT             | CRSP US Total Market |

# INDEX DESCRIPTIONS

## CAPITALIZATION INDEXES

| Ticker  | CUSIP     | ISIN         | Index Name                                  | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|---------|-----------|--------------|---|-----------------------|-------------------|-------------------------------|
| CRSPTMT | 12628H109 | US12628H1095 | CRSP US Total Market Index (TR)             | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPTM1 | 12628G101 | US12628G1013 | CRSP US Total Market Index (PR)             | 1/18/2011             | 4/1/2011          | 4/1/2011                      |
| CRSPMET | 12631H104 | US12631H1041 | CRSP US Mega Cap Index (TR)                 | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPME1 | 12627R108 | US12627R1086 | CRSP US Mega Cap Index (PR)                 | 8/15/2011             | 4/1/2011          | 4/1/2011                      |
| CRSPLCT | 12631M103 | US12631M1036 | CRSP US Large Cap Index (TR)                | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPLC1 | 12627P102 | US12627P1021 | CRSP US Large Cap Index (PR)                | 8/15/2011             | 4/1/2011          | 4/1/2011                      |
| CRSPMIT | 12631T108 | US12631T1088 | CRSP US Mid Cap Index (TR)                  | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPMI1 | 12627W107 | US12627W1071 | CRSP US Mid Cap Index (PR)                  | 8/15/2011             | 4/1/2011          | 4/1/2011                      |
| CRSPSMT | 12591C103 | US12591C1036 | CRSP US Small / Mid Cap Index (TR)          | 3/10/2014             | 3/7/2014          | 3/31/2011                     |
| CRSPSM1 | 12632T107 | US12632T1079 | CRSP US Small / Mid Cap Index (PR)          | 3/10/2014             | 3/7/2014          | 3/31/2011                     |
| CRSPSCT | 12630N102 | US12630N1028 | CRSP US Small Cap Index (TR)                | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPSC1 | 12628A104 | US12628A1043 | CRSP US Small Cap Index (PR)                | 8/15/2011             | 4/1/2011          | 4/1/2011                      |
| CRSPSXT | 12632L104 | US12632L1044 | CRSP US Small Cap ex-Real Estate Index (TR) | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPSX1 | 12631G106 | US12631G1067 | CRSP US Small Cap ex-Real Estate Index (PR) | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPMCT | 12631V103 | US12631V1035 | CRSP US Micro Cap Index (TR)                | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPMC1 | 12627T104 | US12627T1043 | CRSP US Micro Cap Index (PR)                | 8/15/2011             | 4/1/2011          | 4/1/2011                      |

## VALUE AND GROWTH INDEXES

| Ticker   | CUSIP     | ISIN         | Index Name                               | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|----------|-----------|--------------|--|-----------------------|-------------------|-------------------------------|
| CRSPMEVT | 12631L105 | US12631L1052 | CRSP US Mega Cap Value Index (TR)        | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPMEV1 | 12630T109 | US12630T1097 | CRSP US Mega Cap Value Index (PR)        | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPMEGT | 12631K107 | US12631K1079 | CRSP US Mega Cap Growth Index (TR)       | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPMEG1 | 12630R103 | US12630R1032 | CRSP US Mega Cap Growth Index (PR)       | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPLCVT | 12631R102 | US12631R1023 | CRSP US Large Cap Value Index (TR)       | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPLCV1 | 12630X100 | US12630X1000 | CRSP US Large Cap Value Index (PR)       | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPLCGT | 12631P106 | US12631P1066 | CRSP US Large Cap Growth Index (TR)      | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPLCG1 | 12630W102 | US12630W1027 | CRSP US Large Cap Growth Index (PR)      | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPMIVT | 12629L109 | US12629L1098 | CRSP US Mid Cap Value Index (TR)         | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPMIV1 | 12631C105 | US12631C1053 | CRSP US Mid Cap Value Index (PR)         | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPMIGT | 12628N106 | US12628N1063 | CRSP US Mid Cap Growth Index (TR)        | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPMIG1 | 12631A109 | US12631A1097 | CRSP US Mid Cap Growth Index (PR)        | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPSMVT | 12591L103 | US12591L1035 | CRSP US Small / Mid Cap Value Index (TR) | 3/10/2014             | 3/7/2014          | 9/7/2012                      |
| CRSPSMV1 | 12591E109 | US12591E1091 | CRSP US Small / Mid Cap Value Index (PR) | 3/10/2014             | 3/7/2014          | 9/7/2012                      |



| Ticker   | CUSIP     | ISIN         | Index Name                                | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|----------|-----------|--------------|---|-----------------------|-------------------|-------------------------------|
| CRSPSMGT | 12591P104 | US12591P1049 | CRSP US Small / Mid Cap Growth Index (TR) | 3/10/2014             | 3/7/2014          | 9/7/2012                      |
| CRSPSMG1 | 12591M101 | US12591M1018 | CRSP US Small / Mid Cap Growth Index (PR) | 3/10/2014             | 3/7/2014          | 9/7/2012                      |
| CRSPSCVT | 12631N101 | US12631N1019 | CRSP US Small Cap Value Index (TR)        | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPSCV1 | 12631F108 | US12631F1084 | CRSP US Small Cap Value Index (PR)        | 10/1/2012             | 9/10/2012         | 9/10/2012                     |
| CRSPSCGT | 12630V104 | US12630V1044 | CRSP US Small Cap Growth Index (TR)       | 12/31/2012            | 9/10/2012         | 12/7/2012                     |
| CRSPSCG1 | 12631E101 | US12631E1010 | CRSP US Small Cap Growth Index (PR)       | 10/1/2012             | 9/10/2012         | 9/10/2012                     |

## SECTOR INDEXES

| Ticker  | CUSIP     | ISIN         | Index Name                                | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|---------|-----------|--------------|---|-----------------------|-------------------|-------------------------------|
| CRSPCST | 12631W101 | US12631W1018 | CRSP US Consumer Staples Index (TR)       | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPCS1 | 12630G107 | US12630G1076 | CRSP US Consumer Staples Index (PR)       | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPCDT | 12631X109 | US12631X1090 | CRSP US Consumer Discretionary Index (TR) | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPCD1 | 12630J101 | US12630J1016 | CRSP US Consumer Discretionary Index (PR) | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPFNT | 12632A108 | US12632A1088 | CRSP US Financials Index (TR)             | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPFN1 | 12630M104 | US12630M1045 | CRSP US Financials Index (PR)             | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPHCT | 12632C104 | US12632C1045 | CRSP US Healthcare Index (TR)             | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPHC1 | 12630H105 | US12630H1059 | CRSP US Healthcare Index (PR)             | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPIDT | 12632E100 | US12632E1001 | CRSP US Industrials Index (TR)            | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPID1 | 12630F109 | US12630F1093 | CRSP US Industrials Index (PR)            | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPMTT | 12632G105 | US12632G1058 | CRSP US Materials Index (TR)              | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPMT1 | 12630E102 | US12630E1029 | CRSP US Materials Index (PR)              | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPENT | 12631Y107 | US12631Y1073 | CRSP US Energy Index (TR)                 | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPEN1 | 12630A100 | US12630A1007 | CRSP US Energy Index (PR)                 | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPRET | 12632K106 | US12632K1060 | CRSP US Real Estate & REITs Index (TR)    | 12/31/2012            | 4/1/2011          | 12/7/2012                     |
| CRSPRE1 | 12627X105 | US12627X1054 | CRSP US Real Estate & REITs Index (PR)    | 8/15/2011             | 4/1/2011          | 9/21/2012                     |
| CRSPITT | 12632F107 | US12632F1075 | CRSP US Technology Index (TR)             | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPIT1 | 12630P107 | US12630P1075 | CRSP US Technology Index (PR)             | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPTET | 12632H103 | US12632H1032 | CRSP US Media & Communications Index (TR) | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPTE1 | 12630K108 | US12630K1088 | CRSP US Media & Communications Index (PR) | 7/16/2012             | 2/1/2012          | 9/21/2012                     |
| CRSPUTT | 12632J109 | US12632J1097 | CRSP US Utilities Index (TR)              | 12/31/2012            | 2/1/2012          | 12/7/2012                     |
| CRSPUT1 | 12630L106 | US12630L1061 | CRSP US Utilities Index (PR)              | 7/16/2012             | 2/1/2012          | 9/21/2012                     |

## CRSP ISS ESG INDEXES

| Ticker   | CUSIP     | ISIN         | Index Name   | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|----------|-----------|--------------|--|-----------------------|-------------------|-------------------------------|
| CLESGPT  | 12657Y205 | US12657Y2054 | CRSP ISS US Large Cap ESG Prime Index (TR)                       | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGP   | 12657Y106 | US12657Y1064 | CRSP ISS US Large Cap ESG Prime Index (PR)                       | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGNPT | 12658A206 | US12658A2069 | CRSP ISS US Large Cap ESG Non-Prime Index (TR)                   | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGNP  | 12658A107 | US12658A1079 | CRSP ISS US Large Cap ESG Non-Prime Index (PR)                   | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGT   | 12658D200 | US12658D2009 | CRSP ISS US Large Cap ESG Index (TR)                             | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESG    | 12658D101 | US12658D1019 | CRSP ISS US Large Cap ESG Index (PR)                             | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGRT  | 12658E208 | US12658E2081 | CRSP ISS US Large Cap ESG Remainder Index (TR)                   | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGR   | 12658E109 | US12658E1091 | CRSP ISS US Large Cap ESG Remainder Index (PR)                   | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGBT  | 12658F205 | US12658F2056 | CRSP ISS US Large Cap ESG Industry Balanced Index (TR)           | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGB   | 12658F106 | US12658F1066 | CRSP ISS US Large Cap ESG Industry Balanced Index (PR)           | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGBRT | 12658K204 | US12658K2042 | CRSP ISS US Large Cap ESG Industry Balanced Remainder Index (TR) | 9/7/2021              | 9/7/2021          | 9/7/2021                      |
| CLESGBR  | 12658K105 | US12658K1051 | CRSP ISS US Large Cap ESG Industry Balanced Remainder Index (PR) | 9/7/2021              | 9/7/2021          | 9/7/2021                      |

## CRSP CORE INDEXES

| Ticker   | CUSIP     | ISIN         | Index Name                                  | NASDAQ GIDS Post Date | Open Value = 1000 | Index History File Data Start |
|----------|-----------|--------------|---|-----------------------|-------------------|-------------------------------|
| CRSPXMT  | 12666H102 | US12666H1023 | CRSP US Core Cap Index (TR)                 | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPXM1  | 12666H201 | US12666H2013 | CRSP US Core Cap Index (PR)                 | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPXET  | 12666J108 | US12666J1088 | CRSP US Total Market ex-Mega Cap Index (TR) | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPXE1  | 12666J207 | US12666J2078 | CRSP US Total Market ex-Mega Cap Index (PR) | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPMST  | 12671M104 | US12671M1045 | CRSP US Small / Micro Cap Index (TR)        | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPMS1  | 12671M203 | US12671M2035 | CRSP US Small / Micro Cap Index (PR)        | 12/4/2023             | 4/1/2011+         | 12/4/2023                     |
| CRSPXMT  | 12671T109 | US12671T1097 | CRSP US Core Cap Value Index (TR)           | 12/4/2023             | 9/10/2012 ‡       | 12/4/2023                     |
| CRSPXMV1 | 12671T208 | US12671T2087 | CRSP US Core Cap Value Index (PR)           | 12/4/2023             | 9/10/2012 ‡       | 12/4/2023                     |
| CRSPXMG1 | 12671U106 | US12671U1060 | CRSP US Core Cap Growth Index (TR)          | 12/4/2023             | 9/10/2012 ‡       | 12/4/2023                     |
| CRSPXMG1 | 12671U205 | US12671U2050 | CRSP US Core Cap Growth Index (PR)          | 12/4/2023             | 9/10/2012 ‡       | 12/4/2023                     |

+Best fitting value as if the index started at 1000 on 4/1/2011

‡Best fitting value as if the index started at 1000 on 9/10/2012