

AUSTIN ARNOLD · EXECUTIVE OPERATIONS

Relationship Radar

Installation Guide

Relationship Radar keeps a short list of the people who matter and tells you every Friday which of them have gone quiet. It reads the dates of the messages you have sent and the meetings you have held, compares each against a cadence you set, and emails one ranked list of the relationships that need attention.

Setup is two installs, done in order. **Part one** is the Sheet, which is the engine: about ten minutes. **Part two** is the Gmail card, which lets you add someone to the list from an open email on your laptop or your phone: about five minutes, and it is the same paste-in motion you just learned.

Do not start part two until part one is finished, because the card writes into tabs that part one creates.

You need a Google account with Gmail and Calendar. That is all. There is no subscription, no API key, no server, and nothing to ask IT for.

What changed in v1.3

Documentation only. The engine is still 1.2.0 and the Gmail card is still 1.1.0. If you are already installed, there is nothing to paste.

This edition corrects the guide against the code: five tiers where two lines still said four, the Friday link described as the **Write to** line it actually is, the demo counts explained as of the day the sample data is written, the confirmation steps in the order you can do them, the card's fifth permission added, and two limits the code documents but the guide did not (which Google account the Write to link opens, and the Run Log keeping its newest 100 rows).

What changed in v1.2

- **The Friday email now opens Gmail's own compose window.** Under each name is a **Write to** link. It opens Gmail with a blank compose docked in the bottom-right corner. Gmail's **Schedule send** button works there, so a Friday note can be set to arrive Monday morning.
- **That compose opens empty, including the address.** In v1.1 the link arrived pre-addressed, but it landed on a stripped-down Gmail page where Schedule send did not work: choosing a send time closed the window and filed the message as an ordinary draft instead of scheduling it. Gmail accepts a pre-filled address only on that page, and strips it from the working one. This version uses the working one, so you type the address and let Gmail autocomplete it.
- Nothing else changed. Tiers, cadences, permissions and the Gmail card are identical to v1.1.

UPGRADING AN EXISTING V1.1 INSTALL

One file, one paste, about two minutes. Your contacts, tiers, settings and history are untouched, and you will not be asked to authorize anything again.

1. Open your Relationship Radar Sheet.
2. In the menu bar, click **Extensions**, then **Apps Script**. A new tab opens.
3. In the left-hand file list, click **Code.gs**.
4. Click anywhere in the code, select all of it (Cmd+A), and delete it. The editor should be completely empty.
5. Open the new **Code.gs** from this folder in any text editor, select all, and copy it.
6. Paste it into the empty Apps Script editor.
7. Click the save icon. Do not rename the file.
8. Go back to the Sheet's browser tab and reload the page.
9. In the menu bar, click **Relationship Radar**, then **Refresh and email digest**.

Part two needs nothing. The Gmail card is unchanged in v1.2, and it finds your Sheet by a marker that does not carry the version number, so it keeps working without being touched. The top of its code still reads Version 1.1.0, which is correct.

CHECKPOINTS

Stop and check each of these rather than guessing.

AFTER STEP	WHAT YOU SHOULD SEE
2	A tab titled Apps Script with <code>Code.gs</code> and <code>appsscript.json</code> in the left-hand list
6	The third line of the editor reads <code>* Version 1.2.0</code>
7	The save icon greys out and no red error bar appears
8	A Relationship Radar menu in the Sheet's menu bar, to the right of Help
9	An email arrives within about a minute, with a Write to link under each name
Clicking a Write to link	Gmail opens and a small blank compose window appears in the bottom-right corner

If the compose window opens as a full page of its own rather than a small window in the corner, the old code is still running. Repeat from step 3 and make sure the editor was completely empty before pasting.

What changed in v1.1

- **Five named tiers instead of four numbered ones**, on a tighter cadence than v1.0 used:

TIER	DAYS	USE
Tier 1 Inner Circle	7	Board, investor, key partner
Tier 2 Core	14	Internal requests, key accounts, colleagues
Tier 3 Network	21	Adviser, mentor, external request
Tier 4 Contacts	30	Friends, contacts, relationships to maintain
Tier 5 Outer Circle	60	Former colleagues, social contacts, relationships to keep warm

The names and the numbers both live on the Tiers tab and are yours to change.

- **The Gmail card**, part two of this guide.
- **The Friday email opens Gmail**. The old link was a `mailto:`, which handed the click to whatever mail program your computer had registered, which for most people is not Gmail. v1.1 replaced it with a Gmail link under each name. v1.2 changed which Gmail window that link opens, as described above.

UPGRADING AN EXISTING V1.0 INSTALL

The installer never overwrites tiers you already have, so an existing Sheet keeps its four numbered tiers and keeps working. If you want the new names, edit them on the Tiers tab yourself, and then **re-pick the tier on every contact row**. Contacts are matched to tiers by the exact text, so a row still reading `Tier 2` against a tier now named `Tier 2 Core` will show `Fix Contact` until you re-pick it. Renaming five tiers and re-picking thirty rows takes a few minutes. Leaving the old names alone is a perfectly good choice.

Note that v1.1 also tightens the numbers, not just the names. v1.0 ran 14, 30, 45 and 60 days. v1.1 runs 7, 14, 21, 30 and 60. If you keep your old tiers you keep your old cadences, which is the right default: changing the numbers changes who shows up on Friday.

Before you start

Use the right account. Relationship Radar scans the Gmail and Calendar of whichever Google account installs it. If you are setting this up for an executive, install it in the account whose sent mail and calendar actually record the contact. The account that installs the Friday schedule owns that schedule and supplies its permissions.

Have the four files open. `Code.gs` and `appsscript.json` for part one. `Card.gs` and `Card-appsscript.json` for part two. You will paste each one once.

Keep the Sheet restricted. Anyone who can edit the Sheet can edit the script inside it. Leave General access at Restricted.

Do not use a former employer's contacts. Build the live list from your own current network, or stay in Demo Mode for a portfolio demonstration.

Part one: the Sheet

Step 1. Create the Sheet

Go to sheets.new. Click **Untitled spreadsheet** in the top left and name it **Relationship Radar**. Keep those two words somewhere in the name: part two finds this Sheet by searching your Drive for them. If the Sheet is still called **Untitled spreadsheet** when the installer runs, it is renamed **Relationship Radar** for you.

Step 2. Open the script editor

In the Sheet menu choose **Extensions**, then **Apps Script**. A new tab opens with an empty file called **Code.gs**.

Step 3. Paste the code

Open the downloaded **Code.gs** and copy all of it. Back in the Apps Script tab, select everything in the editor's **Code.gs** and paste over it. Click **Save project**.

Step 4. Show the manifest

In the left sidebar of Apps Script click **Project Settings**, the gear icon. Under General settings turn on **Show "appsscript.json" manifest file in editor**.

Step 5. Paste the manifest

Click **Editor** in the left sidebar and open **appsscript.json**. Replace everything in it with the contents of the downloaded **appsscript.json**. Click **Save project**.

Two things go wrong here, and between them they account for most failed installs.

Copy the raw text, not a preview of it. Opening a **.json** file often lands you in a viewer that shows the settings as a formatted, collapsible tree. Copying from that view gives

you something Apps Script will not accept. Look for a **Raw data** tab, or open the file in a plain text editor, and copy from there.

Replace, do not append. Click inside the editor box, press Cmd+A or Ctrl+A, delete until the box is genuinely empty, and only then paste. If you paste on top of what Google already put there, the box ends up holding two settings blocks and saving fails with **"appscript.json has invalid unsaved changes."**

When it is right, the first character in the box is `{`, the last is `}`, and there is nothing after it.

This file does two things. It turns on the Gmail and Calendar services the script uses, and it limits both to read-only access. Without it the installer stops with an error saying Gmail or Calendar is not enabled.

Step 6. Name the project

At the top left of the editor click **Untitled project**, enter **Relationship Radar**, and click **Rename**. This is the name Google shows on the permission screen.

Step 7. Run the installer

In the toolbar above the code, open the function dropdown and choose **installRelationshipRadar**. Click **Run**.

Step 8. Authorize

Google asks for permission the first time.

1. Click **Review permissions**.
2. Choose the account whose Gmail and Calendar should be scanned.
3. Read the list and click **Allow**.

You may see a warning that the app is not verified. It is expected. It refers to the script you just pasted, which Google has never reviewed because it is yours rather than a Marketplace add-on. Click **Advanced**, then **Go to Relationship Radar (unsafe)**, then **Allow**.

If the editor comes back without building anything, choose [installRelationshipRadar](#) and click **Run** once more. The first run sometimes ends at the permission screen.

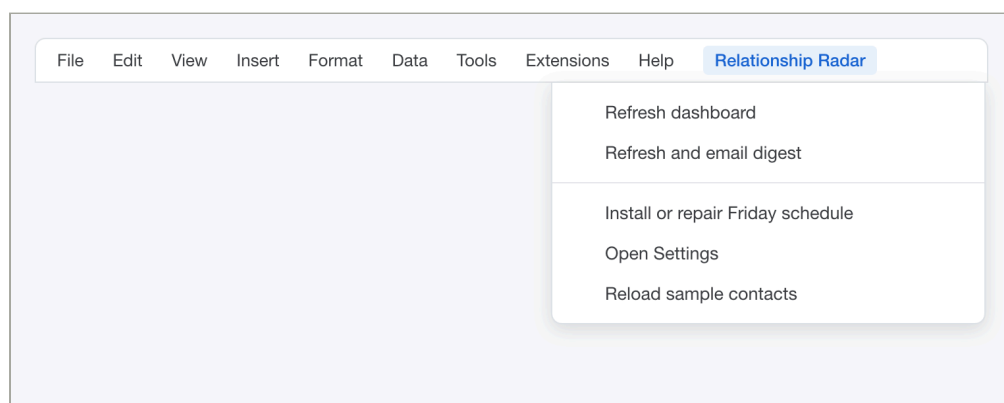
WHAT EACH PERMISSION IS FOR

PERMISSION	WHAT RELATIONSHIP RADAR DOES WITH IT
Current spreadsheet	Builds and updates the tabs in this one Sheet.
Gmail, read only	Finds messages you sent to an exact address and reads their dates.
Calendar events, read only	Finds completed meetings on your primary calendar that an exact address attended.
Send email	Sends the Friday digest to the address in Settings.
Manage script triggers	Creates and repairs the Friday schedule.
View your email address	Fills in the digest recipient during install.

It never asks for Drive, Contacts, permission to change your mail, full Calendar access, or the ability to reach the internet. It never requests a message body, subject, attachment, event title, description or location.

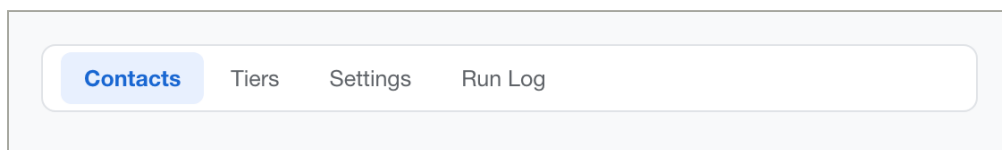
Step 9. Back to the Sheet

Return to the Sheet tab and reload the page. A **Relationship Radar** menu now sits after **Help**.



The Relationship Radar menu

The Sheet has four tabs.



The Sheet tabs

- **Contacts** holds ten synthetic people at addresses ending in **.example**, a reserved domain that cannot reach anyone.
- **Tiers** holds the five cadences.
- **Settings** has Demo Mode checked.
- **Run Log** is empty until the first run.

A fifth tab, Demo Activity, is hidden. It holds only the synthetic dates.

The Friday schedule is already installed. It runs in Demo Mode too, so until you change Demo Mode or remove the schedule, the Friday email uses the synthetic contacts and its subject starts with **[Demo]**.

Confirm it works

Refresh the dashboard. Choose **Relationship Radar**, then **Refresh dashboard**. A message in the bottom corner says five relationships need attention. In the Contacts tab, every row now has dates and a status. Four are Overdue, one is No History Found, and five are Current.

The four Overdue rows, most overdue first, are Noah Williams at 54 days over, Marcus Lee at 47, Lena Brooks at 40 and Daniel Ruiz at 5. Amina Hassan is the No History Found row. Those numbers are exact on the day the sample data was written, which is the day you installed. Every Days Since figure rises by one each day after. If your numbers match, allowing for that, the demo is behaving exactly as designed.

Check the boundary. Olivia Grant's last contact is exactly 30 days ago on a 30 day cadence, and her status is Current. A contact at the cadence is still current. She becomes Overdue the day after install, so from then on the count reads five Overdue and six needing attention, in the Sheet and in the email subject. Choose **Relationship Radar**, then **Reload sample contacts** to put the sample dates back to today and the counts back to the ones above.

Send the demo email. Choose **Relationship Radar**, then **Refresh and email digest**.

The address in Settings receives an email with the subject

[Demo] Relationship Radar: 5 relationships need attention .

Click a Write to link in the email. Under each name in the demo email is a Write to link. Click one. Gmail opens with a blank compose window docked in the corner, with Schedule send available in it. That is the whole point of the link: one click from the list to writing.

Read the Run Log. One row was added per run. It carries counts, duration, and where the email went. It never records a contact's name or address. The only address in it is your own, as the digest recipient.

If all five happened, the installation is complete.

Going live

1. Replace the synthetic rows in Contacts with real people. Keep the list to the 30 to 50 relationships that actually matter, and type each email address exactly as it appears in your sent mail and calendar invites.
2. Give each person a tier and a short context, and leave Active checked.
3. Open Settings and change **Demo Mode** to **FALSE** .
4. Choose **Relationship Radar**, then **Refresh dashboard**. The first live scan can take a few minutes, since it searches two years of sent mail and calendar for each person.
5. Read the dates and statuses before you send anything. When they look right, choose **Refresh and email digest** to send the first live list.

From then on the Friday schedule runs on its own.

The Friday schedule

The installer creates one trigger that runs **runRelationshipRadar** every Friday, around the hour in **Friday Run Hour** (9 by default) in the **Time Zone** from Settings. Google picks the exact minute, up to 15 minutes either side of the top of that hour.

If you change either setting, choose **Relationship Radar**, then **Install or repair Friday schedule**. That removes the old Relationship Radar triggers, creates one fresh Friday

trigger, and leaves any unrelated triggers in the project alone.

Two safeguards run underneath.

- **If a scan is already running** when the Friday trigger fires, it waits up to 30 seconds, then schedules a single retry about ten minutes later and exits. The retry runs once and does not schedule another.
- **One email a week.** The scheduled run will not send a second digest in a week where one already went. Choosing **Refresh and email digest** from the menu sends on demand regardless.

The lookback safeguard

Gmail Lookback Days and **Calendar Lookback Days** both default to 730, and each can be set anywhere from 1 to 3651. Each must be at least one day longer than the largest cadence among your active contacts. Otherwise a person could be flagged as having no history when the scan simply did not look back far enough.

Both values are checked before every run. If either is too short, the run stops before touching Gmail or Calendar, leaves the dashboard as it was, sends no email, and writes the reason to the Run Log.

The calendar boundary

Leave **Calendar IDs** set to **primary**. Version 1 refuses secondary and shared calendars on purpose. On a shared calendar the script cannot tell whether you were actually in a meeting, and a false recent date is worse than a missing one.

Troubleshooting

The editor says the Gmail or Calendar API is not enabled. The manifest was not replaced completely or was not saved. Repeat Step 5, then run the installer again.

Google asks for permission again. A change to the code or manifest can add a permission. Allow everything listed, then choose **Install or repair Friday schedule**.

The menu is missing. Reload the Sheet. If it is still missing, run **installRelationshipRadar** again from Apps Script.

A contact is not matching. Check the exact email in Contacts and confirm the meeting is on the primary calendar. The script does not guess aliases, strip plus tags, or expand groups, because every one of those shortcuts can invent a recent date that never happened.

The digest is too long. Raise a tier's cadence, uncheck the lower-priority rows, or lower **Maximum Digest Contacts**. The Sheet always keeps every result, whatever the email shows.

The run stops before it finishes. A live scan has a safe limit of four and a half minutes. Uncheck lower-priority contacts first. If you shorten the lookbacks instead, both must stay at least one day longer than the largest active cadence. A run that hits the limit never sends a partial email and never overwrites the last good dashboard.

Gmail candidate limit reached. Gmail returned more than fifty messages for one address without an exact match on the recipient. Check the address for a typo, then shorten **Gmail Lookback Days**.

The installer says a tab has unexpected headers. The Sheet already had a tab named Contacts, Tiers, Settings, Run Log or Demo Activity with its own first row. Use a new blank Sheet, or restore the original headers on that tab.

The Write to link opens the wrong Gmail account. The link opens the first Google account signed in to your browser. If you are signed in to more than one and the Radar account is not first, Gmail opens the other mailbox. Use a browser profile where the Radar account is the only one, or the first one.

Turning it off

Stop the Friday email: in Apps Script, choose `uninstallFridaySchedule` from the function dropdown and click **Run**. Nothing is deleted. The menu still works on demand.

Stop entirely: delete the Sheet. The script lives inside it, so nothing else remains. Deleting is permanent once the Sheet leaves the Drive trash, so keep a copy of the contact list if you want it.

Revoke access: go to myaccount.google.com/permissions, find Relationship Radar, and remove it.

Part two: the Gmail card

Part one is the engine. Part two is how people get onto the list in the first place, without opening the Sheet.

The card is a **separate Apps Script project**. It has to be, because a script living inside a spreadsheet cannot be a Gmail add-on. This is why you paste a second pair of files rather than adding to the first.

It works in Gmail on a computer and in the Gmail app on Android and iPhone.

Step 1. Create the project

Go to [script.new](#) . Click **Untitled project** in the top left and name it **Relationship Radar Card** .

This is a **separate project**, not a new file inside the Sheet's script. Do not use the plus button in part one's editor: a script that lives inside a spreadsheet cannot be a Gmail add-on, which is the whole reason for a second project. [script.new](#) opens a standalone one, and the name goes in the top left where it says Untitled project.

Step 2. Paste the code

The new project opens with one empty file already called [Code.gs](#) . Use it. Select everything in it, delete it, and paste all of [Card.gs](#) in its place. Press **Save**.

Leave the file named [Code.gs](#) . Apps Script does not care what a script file is called, and renaming it changes nothing.

Step 3. Show the manifest

Click **Project Settings** in the left sidebar. Tick **Show "appsscript.json" manifest file in editor**. Return to **Editor**.

Step 4. Paste the manifest

Open `appsscript.json` in the file list. Select everything and delete it. Paste all of `Card-appsscript.json`. Press **Save**.

This is the step installs go wrong on. The file must be named `appsscript.json` in the editor, even though the download calls it `Card-appsscript.json` to keep it apart from part one's copy.

The same two traps from part one apply. Copy from the **Raw data** view, not a formatted preview, and empty the editor box completely before pasting.

Step 5. Install it

Click **Deploy**, then **Test deployments**. Click **Install**, then **Done**.

There is no Marketplace listing and no review. The project is yours, so you can install it into your own account directly.

Step 6. Authorize and connect

Open Gmail and reload the page. The Relationship Radar icon appears in the right-hand side panel. Click it.

The first time, Google asks for permission, and you will see the same unverified-app warning as in part one. Click **Advanced**, then **Go to Relationship Radar Card (unsafe)**, then **Allow**.

The panel then shows a setup card. Click **Find my Sheet**.

- If it finds one, it connects and names it. You are done.
- If it finds several, pick the right one from the list.
- If it finds none, paste the Sheet's link into the field and click **Connect**.

Step 7. Prove it actually writes

Click **Test connection**. It writes a row into your Contacts tab and removes it again, then tells you what it saw.

Do this. A card can install perfectly and still be pointed at nothing, and that failure looks exactly like success until the Friday email is short a person.

Using it

Open any email. The Relationship Radar panel offers to add the sender. Choose a tier, add a short context if you want one, and click the **Add** button, which carries the sender's name.

If that person is already on the list, the card says so and updates their tier instead of adding them twice.

WHAT EACH CARD PERMISSION IS FOR

PERMISSION	WHAT THE CARD DOES WITH IT
Run as a Gmail add-on	Lets the panel appear inside Gmail. On its own it reaches nothing.
Gmail add-on, current message metadata	Reads the From line of the message you have open. It cannot reach subjects, bodies or attachments.
Google Sheets	Writes the contact row into your Relationship Radar Sheet.
Drive, file names only	Finds your Sheet by name during setup. This permission is blocked from reading the contents of any file.
Store user data	Remembers which Sheet you connected, so setup happens once.

The card never asks for Contacts, full Drive access, permission to send mail, or the ability to reach the internet.

CARD TROUBLESHOOTING

WHAT YOU SEE	WHAT TO DO
The panel never appears in Gmail	Reload Gmail. If it is still missing, open the script project and check Deploy , then Test deployments , shows it installed.
"Script function not found: onRadarHomepage"	The panel installed but the code did not. The new project's Code.gs is still Google's function myFunction() stub. Replace all of it with Card.gs , save, reload Gmail. This is the most common part-two failure.
The sidebar icon is nearly invisible	You are on Gmail's dark theme and the icon is dark. The manifest ships a Google Blue icon that reads on both themes. If yours is dark, your manifest predates that fix: change track_changes_black_48dp.png to track_changes_googblue_48dp.png in appscript.json and save.
"No Relationship Radar Sheet found"	The Sheet's name does not contain Relationship Radar . Rename it, or paste its link into the field instead.
"That Sheet is missing the Contacts and Tiers tab"	Part one has not been run in that Sheet. Finish part one first.
"No tiers found on the Tiers tab"	Open the Sheet and run installRelationshipRadar once.
The tier dropdown is missing a tier you added	The card reads tiers live. Close the panel and open the message again.

Official references

- [Advanced Google services](#)
- [Authorization scopes](#)
- [Installable triggers](#)
- [Calendar API permissions](#)